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JAVAREGOWDA P.K
Dr. CHANDRASHEKARA .P
Dr. MANJU .K.P
ANURADHA .S



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- Chief Editor

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USAGE EXPERIENCE OF DIGITAL LIBRARY RESOURCES ON INFORMATION NEEDS OF MEDICAL PROFESSIONALS IN MYSORE DISTRICT MEDICAL COLLEGE LIBRARIES: A STUDY

Dr. Puttaswamy

*Librarian, Govt. First Grade College, T Narasipura,
Mysore District.Karnataka, E-mail: mbputtaswamy@rediffmail.com.*

Dr. Siddaramu P

*Librarian, Govt. First Grade College, Siddartha Layout,
Mysore. E-mail: siddupj1@gmail.com.*

ABSTRACT

Medical libraries play a crucial role in healthcare by providing access to a vast array of medical literature, research and resources. They support healthcare professionals, students and researchers in staying updated on medical advancements, evidence-based practices, and clinical guidelines. These libraries offer with good collection of books, journals, and online databases, fostering a learning environment and promoting evidence-based healthcare delivery. Medical professionals are experiencing to access a vast array of research articles through the online databases like PubMed, e-journals, e-books, e-archives, medical apps for enhancing patient care accessibility. Additionally, medical professionals can stay updated through online courses, webinars, and collaborative platforms, fostering continuous learning and knowledge sharing in the ever-evolving field of healthcare. This paper discuss about the usage experience of digital library resources on information needs of medical professionals in Mysore District Medical College Libraries. The paper also highlights about the purpose of accessing information needs and preferred place of accessing information needs and resources of medical Professionals. The paper also ascertains the opinion from medical professionals about information content of the e- resources.

Keywords: *Medical professionals, Usage experience, Digital library resources, Mysore District, Medical College Libraries*

Introduction:

The evolution of innovative Information and Communication Technologies (ICTs), coupled with the expansion of the Internet and Web 2.0 services, has redefined the role of medical librarians. Ensuring timely access to accurate information in various formats is crucial for knowledge enhancement and developmental activities. ICT developments encompass a range of tools and procedures, such as computer programs, databases, communication networks, artificial intelligence, and knowledge bases, facilitating the generation, storage, retrieval, and transmission of information electronically.

Medical professionals diagnose and treat illnesses, injuries, and health conditions. They include doctors, nurses, pharmacists, and allied health professionals, working collaboratively to provide patient care. Specialties range from primary care to surgery, with a commitment to promoting health and well-being. Continuous education and adherence to ethical standards are integral to their practice.

Medical professionals have diverse information needs, including access to current research, clinical guidelines, patient data, drug interactions, and diagnostic tools. They require up-to-date information to make informed decisions, stay abreast of medical advancements, and provide optimal patient care. Additionally, educational resources and professional networking platforms are essential for continuous learning and collaboration within the healthcare community.

Literature review:

Sunil Kumar Satpathy and Santosh Kumar Satapathy (2014): the study underscores the vital role of Electronic Resources as the primary medium for disseminating Electronic Information. They note the significant growth in both the quantity and diversity of Electronic Information resources, establishing them as indispensable for scholarly scientific literature. The authors highlight the increasing availability of Electronic Information derived from scientific and medical research on networked platforms. The study focusing on Aligarh Muslim University, India, the study explores the utilization of web sources, including e-journals and e-databases subscribed by the UGC-Info-net consortium, among health sciences students. Using a well-structured questionnaire, 120 students were surveyed, resulting in a 76.66% response rate with 92 filled questionnaires.

The study's findings reveal that assessing students as a homogeneous group may be counterproductive. Diverse usage patterns of web resources are influenced by factors like study area, year of study, psychological natures, and other demographic elements. The paper underscores the importance of a nuanced understanding of how different student segments engage with web resources, offering valuable insights for institutions seeking to tailor support and resources to meet varied student needs and preferences.

Asefeh and Nosrat (2007) conducted a survey at Isfahan University of Medical Sciences in Iran, exploring the relationship between awareness and usage of digital resources among students. Utilizing a descriptive method, they surveyed users of medical libraries and information centers affiliated with the university, with 250 randomly selected students participating. Findings indicated that 70% of students were aware of digital resources, but only 69% utilized them. Notably, awareness of offline databases was 62%, yet only 19% accessed them through the Central Library LAN network. Approximately 70% were aware of online databases accessible via the Central Library website, with 53% using them. Notably, 87% of students felt that available data resources met their information needs. Challenges included limited use of offline databases due to infrequent orientation and lack of education, coupled with connectivity and hardware issues. The study emphasized the correlation between awareness and usage, recommending improvements in orientation programs and technological infrastructure for enhanced utilization of digital resources at Isfahan University of Medical Sciences.

Objectives of the study:

The following objectives are main objectives of the study;

1. To Know the usage experience of digital library resources on information needs of medical professionals in Mysore District Medical College Libraries
2. To Find out the purpose of Accessing Information needs
3. To examine the Preferred Place of Accessing Information needs and Resources
4. To ascertain the Opinion from Medical professionals about information content of the E- Resources

Methodology:

The present study has adopted simple random sampling method and questionnaire has been distributed to the medical professionals of the selected institutions of Mysore District. The survey methodology involved the distribution of structured questionnaires to gather data from Medical Professionals. Totally 480 questionnaires were distributed, of which 470 were received and 405 (86.17) are fully furnished with all the required information. It is important to note that the study's findings are exclusively based on the responses obtained from the distributed questionnaires and insights gained from informal interviews conducted with the medical Professionals in Mysore District.

Scope and Limitations of the study:

The scope of this study is focused on examining the usage experience of digital library resources on information needs of medical professionals in Mysore District Medical College Libraries. The 16 selected institutions of Medical and Paramedical Professionals in

government, management, and self-financing sectors within the Mysore district have taken for the study. The population sampled for this study includes Dental, Medical, and Paramedical Professionals practicing in the Mysore district.

Analysis and Interpretation of Data:

The data collected from the medical professionals were analyzed and presented in the following elements;

Table 1 Distribution of Questionnaires

Sl. No	Distribution of Questionnaires	Total	%
1	Questionnaires Distributed	480.00	100.00
2	No. of Questionnaire Received	405.00	84.38

Table 1 presents the distribution of questionnaires to medical professionals, including paramedical staff, in Mysore District. Out of the 480 questionnaires distributed, 405 respondents participated, resulting in a response rate of 84.38%.

Table 2 Gender wise respondents from selected institutions

Sl. No	Name of the Institution	Category	Male	%	Female	%	Total
1	Sri.Jayadeva Institute of cardiovascular Sciences and Research, Mysore	Government	15	3.70	14	3.46	29
2	Govt. Mysore Medical College and Research Institute, Mysore	Government	16	3.95	11	2.72	27
3	Government Ayurveda Medical College and Hospital, Mysore	Government	15	3.70	13	3.21	28
4	Government Nursing College, Mysore	Government	13	3.21	15	3.70	28
5	Govt. Nature cure and Yoga college Mysore	Government	12	2.96	14	3.46	26
6	JSS Ayurvedic Medical College and Hospital, Mysore	Management	13	3.21	12	2.96	25
7	JSS Medical College and Hospital, Mysore	Management	14	3.46	12	2.96	26
8	Farooqia Dental College Hospital, Mysore	Management	12	2.96	12	2.96	24
9	JSS Medical college and Hospital, Mysore	Management	15	3.70	13	3.21	28
10	JSS College of Nursing, Mysore	Management	12	2.96	13	3.21	25
11	JSS College of Pharmacy, Mysore	Management	14	3.46	13	3.21	27
12	Farooqia College of Pharmacy, Mysore	Management	11	2.72	12	2.96	23
13	Sarada Vilas College of Pharmacy, Mysore	Management	13	3.21	11	2.72	24
14	Vidyavikas college of Nursing, Mysore	Self-Financing	12	2.96	10	2.47	22
15	BGS Academy for	Self-Financing	11	2.72	10	2.47	21

	Nursing Science, Mysore						
16	Sunitha Institute of Paramedical Sciences, Mysore	Self-Financing	11	2.72	11	2.72	22
	Total		209	51.60	196	48.40	405

Table 2 depicts about the gender wise respondents from 16 selected institutions. In a survey with 480 respondents, gender-wise analysis reveals a predominant participation of male respondents (51.60%) compared to females (48.40%). Among the 209 male participants, Govt. Mysore Medical College and Research Institute Mysore stands out with the highest representation (3.95%), followed closely by Sri Jayadeva Institute of Cardiovascular Science and Research Mysore, Government Ayurveda Medical College and Hospital Mysore, and JSS Medical College and Hospital (each at 3.70%). For the 196 female respondents, the highest participation comes from Government Nursing College Mysore (3.70%), followed by Govt. Mysore Medical College and Research Institute Mysore and Government Nature Cure and Yoga College and Hospital (each at 3.46%).

Usage experience of digital library resources on information needs of medical professionals:

The usage experience of digital library resources concerning the information needs of medical professionals, considering various time periods ranging from less than six months to above four years. The researcher has framed one of the criteria to the questionnaire for further analysis to know about the selected respondents of their usage experience or duration of time in using Information needs and use pattern of medical professional consortium services. The following are the categorized time periods: (i) less than six months, (ii) six months to one year, (iii) one to two years, (iv) three to four years and (v) above four years.

Table 3 Usage experience of digital library resources on information needs of medical professionals

Sl.No	Period of Usage Experience	Gender		Total	Mean	SD	CV
		Male (X)	Female (Y)				
1	Less than 6 months	42	36	78	39.00	9.00	7.69
2	6 months – one year	47	41	88	44.00	9.00	6.82
3	One –two years	48	49	97	48.50	0.25	1.03
4	Three –four years	37	36	73	36.50	0.25	1.37
5	Greater than four years	35	34	69	34.50	0.25	1.45
	Total	209	196	405	202.50	42.25	3.21

Note: Respondents were permitted multiple answers

Table 3 indicates that a majority of male respondents (48 individuals) have one to two years of experience in utilizing medical-related resources for information needs and use patterns. Additionally, 47 respondents have six months to one year of experience, with 42 among them having less than six months of experience. Similarly, a majority of female respondents (49 individuals) have one to two years of experience in using these information resources, while 41 have six months to one year of experience. The analysis leads to the conclusion that the prevalent trend among both male and female respondents is one to two years of experience in utilizing digital resources of information needs.

Table 4 purpose of Accessing Information needs

Sl. No	Purpose of Access	Total	%
1	For research purpose	76	18.77
2	For Publishing Articles / Books	70	17.28
3	For updating subject Information	66	16.3
4	For finding relevant Information in the area Specialization	77	19.01
5	Seminar presentations	65	16.05
6	Others	51	12.59
	Total	405	100

Note: Respondents were permitted multiple answers

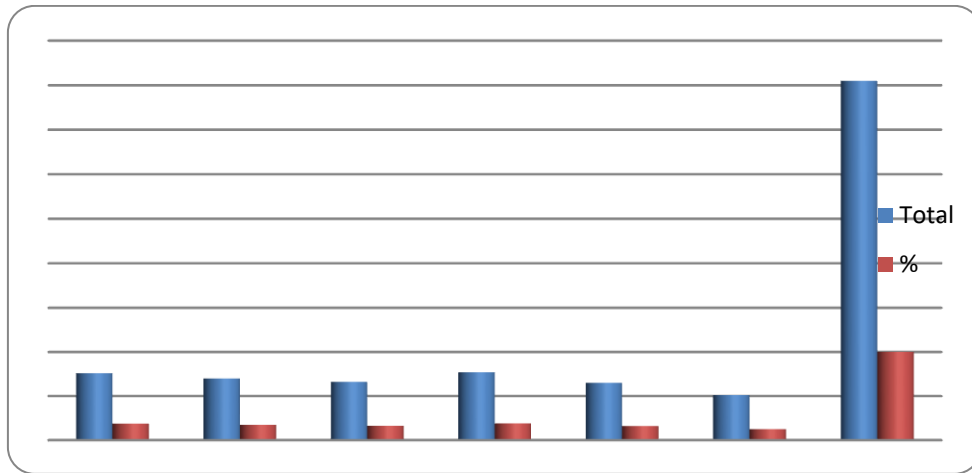


Figure 1 : Purpose of Accessing Information needs

Table 4 presents purpose of Accessing Information needs of medical Professionals. A total of 77 respondents (19.01%) indicated a preference for finding relevant Information in the area Specialization. Additionally, 76 respondents (18.77%) expressed a primary interest in accessing information for research purposes. Accessing information for the purpose of publishing articles or books was the choice for 70 respondents (17.28%). Furthermore, 66 respondents (16.3%) cited accessing information for updating subject knowledge as their main reason. Seminar presentations motivated 65 respondents (16.05%) to access information, while 51 respondents (12.59%) specified other reasons for access their information needs.

Preferred Place of Accessing Information Resources by Medical professionals

For analyzing the preferred place for accessing Information needs and resources of the medical professionals has classified the access point into various sets like Central library, Department, Hospitals and other places.

Table 5: Preferred Place of Accessing Information Resources by Medical professionals

Preferred Place of Accessing	No of Respondents	%
Central Library	110	27.11
Department	113	28.00
Hospital	99	24.4
Other Places	83	20.49
Total	405	100

Note: Respondents were permitted multiple answers

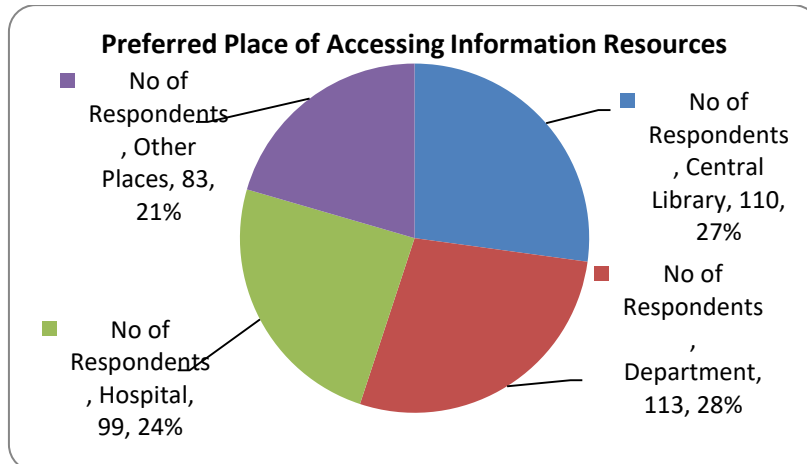


Figure 2 : Preferred Place of Accessing Information Resources

Table 1 and Figure 2 present insights into the preferred places for accessing information resources among medical professionals. Among the 113 respondents surveyed, 28% expressed a preference places of accessing is their department library. Additionally, 110 respondents, constituting 27.11% of the total, favored the central library for accessing information resources. A significant portion, 24.4% (99 respondents), indicated a preference places for obtaining information within the hospital premises. Moreover, 83 respondents (20.49%) reported accessing information resources in other locations. This data underscores the diverse choices medical professionals make when it comes to accessing information, with department libraries and central library's being notable preferences

Table -5 : Opinion about information content of the E- Resources

Opinion about information content of the E Resources	Gender wise			Mean	V	SD
	Male	Female	Total			
Excellent	71	59	130	65	36.00	6.00
Good	56	53	109	54.5	2.25	1.50
Moderate	43	44	87	43.5	0.25	0.50
Poor	39	40	79	39.5	0.25	0.50
Total	209	196	405	202.5	42.25	6.50
Mean	52.25	49.00	101.25			
V	156.69	55.50	396.19			
SD	12.52	7.45	19.90			

Note: Respondents were permitted multiple answers

Table 6 reveals that more number of female respondents opined that an excellent regarding the information content related to the information needs and use pattern of medical professional resources. Additionally, 53 respondents indicate that the content is deemed good. The mean value, variance, and standard deviation for female respondents are recorded at 49, 55.50, and 7.45, respectively. The analysis suggests a consensus among both male and female respondents, highlighting that the majority perceives the usefulness and content of information needs and use patterns in medical professional resources as excellent, followed by a substantial recognition of it being good. A smaller proportion expresses a moderate viewpoint, underscoring an overall positive sentiment towards the information resources among the surveyed professionals.

Findings of the study:

1. Out of the 480 questionnaires distributed, 405 respondents participated resulting in a response rate of 84.38%.
2. The 16 selected institutions of Medical and Paramedical Professionals in government, management, and self-financing sectors within the Mysore district have taken for the study.
3. The gender-wise analysis of the study reveals that a predominant participation of male respondents (51.60%) compared to females (48.40%).
4. It is found that both male and female respondents is one to two years of experience in usage of digital resources of information needs of medical professions
5. Majority of respondents 77 respondents (19.01%) prefer to use the digital library resources for Accessing Information needs of medical Professionals followed by for research purposes, publishing articles or books , updating subject knowledge , seminar presentations , other reasons for access their information needs.
6. Majority of the 113 (28%) respondents preferred to access information resources in their department Library, 110 (27.11) respondents preferred central Library , 99 (24.4%) access information in Hospital and 83 (20.49%) respondents access in other places
7. The study reveals that more number of female respondents express an excellent view regarding the information content related to the information needs and use pattern of medical professional resources. Additionally, 53 respondents indicate that the content is deemed good. The mean value, variance, and standard deviation for female respondents are recorded at 49, 55.50, and 7.45, respectively.

Conclusion:

The increasing reliance on digital resources, including e-books, e-journals, e-databases and online courses, has significantly transformed the landscape of medical education. The integration of digital health resources, such as health apps and telemedicine services, has revolutionized patient care, enabling remote monitoring and timely interventions. Open access journals play a crucial role in supporting evidence-based practices by providing valuable research without subscription barriers. For the medical professionals, access to authentic and evidence-based digital resources is essential for continuous education and staying updated on advancements in the field. The utilization of e-government services further simplifies administrative tasks, contributing to the efficient management of public health information. Medical Library's role in providing seamless access to these resources is paramount. Ensuring that medical professionals receive the right information at the right time and in the right form is vital for their knowledge improvement and developmental activities. As the healthcare landscape evolves, embracing and optimizing the use of digital resources becomes imperative for fostering excellence in medical education and patient care.

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A STUDY ON -EFFECTS OF AEROBIC CAPACITY, MUSCULAR ENDURANCE AND BODY MASS INDEX ON LEARNING ABILITY OF YOUNG STUDENTS

S.Kiran Rowth

Physical Education Director

Govt First Grade College, Siddartha Layout, Mysore

ABSTRACT

Practitioners and scientists have demonstrated great interest in the physiological and biochemical effects of endurance training on the results of the marathon run. It is well documented that athletes with a large proportion of slow twitch and fast twitch aerobic skeletal muscle fiber, high metabolic enzyme activities and concentrations, large mitochondria concentration and, of course, the ability to increase the power output generated for a given rate of oxygen consumption and energy expenditure, are generally highly successful distance runners. Aerobic and endurance training have been shown to bring about significant adaptations to the skeletal muscle and its inclusions as well as to the delivery system. In particular, enzyme activity levels are readily mutable, mitochondrial concentrations increase, and some evidence suggests that the fiber distribution is changed. This article briefly reports on changes in skeletal muscle brought about by endurance training and those changes that appear most effective in yielding success in endurance events.

Key words: *muscle metabolism, glycogen, substrates, training, Aerobic and endurance training, Fitness.*

Introduction

Aerobic fitness, also called *cardiorespiratory fitness* in clinical medicine, is a measure of the body's ability to take oxygen from the atmosphere and use it for energy production in the cells. Maximum oxygen consumption (VO_2max), measured in milliliters per minute per kilogram, is a commonly used measure of aerobic fitness. Many factors influence aerobic fitness, including sex, age, genetic factors, body composition, diseases, physical training background, pulmonary and cardiac functions, neural factors, and skeletal muscle properties. Maximal muscular strength is the ability of a muscle or muscle group to generate maximal force. One repetition maximum, measured in kilograms, is a commonly used measure of muscular strength. Aside from the properties of skeletal muscle, maximal muscular strength is mainly determined by muscle mass as well as the number of active motor units and their firing rate. At the muscular level, high aerobic fitness is associated with high capacity for oxidative lipid metabolism, or muscular endurance. Muscular endurance is defined as the muscle's ability to exert successive submaximal force for a certain time and is also influenced by aerobic fitness.

According to several observational studies, aerobic fitness, muscular strength, and participation in physical activity measured in different ways are associated with better cardiometabolic health and lower risk of death. According to epidemiological evidence, aerobic fitness in particular is an indicator of good health and reduced risk of premature death. Aerobic fitness is a stronger predictor of reduced risk of death than physical activity level both in human and in animal studies. In a 2003 study of former top-level Finnish male athletes and matched control participants, endurance sports athletes with proven high aerobic capacity had lower occurrence of type 2 diabetes and cardiovascular diseases and reduced risk of death compared with power athletes or control participants. However, genetic pleiotropy may explain part of these associations.

Aerobic Capacity

Aerobic exercise (also known as cardio) is physical exercise of low to high intensity that depends primarily on the aerobic energy-generating process. "Aerobic" means "relating to, involving, or requiring free oxygen", and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. Generally, light-to-moderate intensity activities that are sufficiently supported by aerobic metabolism can be performed for extended periods of time. What is generally called aerobic exercise might be better termed "solely aerobic", because it is designed to be low-intensity enough so that all carbohydrates are aerobically turned into energy.

When practiced in this way, examples of cardiovascular or aerobic exercise are medium to long distance running or jogging, swimming, cycling, and walking.

Aerobic capacity related to

- Aerobic activities use the larger muscle groups over an extended time period where the energy is supplied by the oxygen utilizing process. Sample activities include walking, jogging, swimming, and cycling.
- Aerobic capacity is the highest amount of oxygen consumed during maximal exercise in activities that use the large muscle groups in the legs or arms and legs combined. Aerobic capacity, aerobic power, functional capacity, functional aerobic capacity, maximal functional capacity, cardiorespiratory fitness, cardiovascular fitness, maximal oxygen intake, and maximal oxygen uptake are terms that are often used interchangeably.
- Aerobic conditioning is regular physical training in aerobic activities over an extended period of time.
- Aerobic fitness is the capacity to exercise in aerobic activities for a prolonged period where the amount of activity depends on aerobic capacity and cardiorespiratory endurance.
- Agility is a skill-related component of physical fitness that relates to the ability to rapidly change the position of the entire body in space with speed and accuracy.
- Anaerobic exercise is intense activity requiring energy production without using oxygen. Anaerobic means in the absence of oxygen.

Aerobic Training

Aerobic training strengthens the heart and lungs and improves muscle function. One goal of aerobic training is to enhance sports performance and to improve training response. The following is information from the American Academy of Pediatrics (AAP) about aerobic training exercises.

What are aerobic training exercises?

Aerobic training exercises are any activities that raise heart rate and make breathing somewhat harder. The activity you are doing must be constant and continuous. Examples of aerobic activities are

- Walking or hiking
- Jogging or running
- Biking
- Swimming
- Rowing
- In-line skating
- Cross-country skiing
- Exercising on a stair-climber or elliptical machine

Other activities, when done in a constant and continuous way, can be aerobic, such as tennis, racquetball, squash, and the martial arts. Weight training, however, is not aerobic because it is done in short bursts of a few minutes at a time.

How does aerobic training improve endurance?

Aerobic training increases the rate at which oxygen inhaled is passed on from the lungs and heart to the bloodstream to be used by the muscles. Aerobically fit athletes can exercise longer and harder before feeling tired. During exercise they have a slower heart rate, slower breathing rate, less muscle fatigue, and more energy. After exercise, recovery happens more quickly. Aerobic fitness can be measured in a laboratory setting while exercising on a treadmill or bicycle. This is called *maximal oxygen uptake* or *VO2 max*.

Types of aerobic exercise

Indoor	Outdoor	Indoor or outdoor
Elliptical trainer	Walking	Swimming
Indoor rower	Cycling	Kickboxing
Stationary bicycle	Running	Skipping rope or jump rope
Treadmill	Cross-country skiing	Circuit training
	Cross-country running	Jumping jacks
	Nordic walking	Water aerobics
	Inline skating	Jogging
	Skateboarding	
	Rowing	

How often and how long should athletes train?

To achieve a training response, athletes should exercise 3 to 5 times per week for at least 20 to 60 minutes. Fitness level can be improved with as little as 10 minutes of exercise if done 2 to 3 times per day. If the goal is also to lose body fat, athletes should exercise for at least 30 to 60 minutes. Athletes who are not fit will need to start with lesser amounts of exercise. They can slowly add more time as their endurance improves. Increasing the level of exercise at about 10% per week is a good goal to prevent overuse injury.

Cross-training can help reduce the risk of overuse injuries. This is done by alternating different kinds of activities. To avoid putting too much stress on the body and help prevent injuries, it is wise to alternate high-impact activities, like running, with low-impact exercises, like walking, cycling, and swimming.

How hard should athletes train?

Training at low to moderate intensity levels is enough to improve endurance. In general, this level of intensity is more enjoyable and less likely to lead to injuries than high-intensity training.

However, aerobic training programs should be designed to match each athlete's fitness level. There are 3 ways to measure aerobic training intensity.

1. **The "talk test."** During a workout, athletes should be able to say a few words comfortably, catch their breath, and resume talking. If it is difficult to say a few words, then athletes should probably slow down. If athletes can talk easily without getting out of breath, then they are probably not training hard enough.
2. **Heart rate.** Aerobic training occurs when heart rate during exercise is between 60% to 90% of maximal heart rate. Athletes can figure out their maximal heart rate by subtracting their age from 220.

How to Calculate Maximal Heart Rate (HR) Between 60% to 90%

Maximal HR = 220 – your age)

60% maximal HR = 0.6 X (220 – your age)

90% maximal HR = 0.9 X (220 – your age)

Example for a 15-year-old

Maximal HR: 220 – 15 = 205

60% maximal HR: 0.6 x 205 = 123

90% maximal HR: 0.9 x 205 = 184.5

Target HR range for aerobic training is 123 to 184 beats per minute.

3. **Level of difficulty.** Athletes can determine how hard the exercise feels on a scale of 1 to 10 using the Borg Scale of perceived exertion. The ideal range for aerobic training is between 2 to 7.

Muscular endurance

Muscular endurance is your muscles' ability to perform repetitive motions — lengthening and contracting — over long periods of time without getting tired. The underlying purpose of muscular endurance is to improve performance in your sport and exercise activities.

By improving your muscular endurance, you improve your muscles' capabilities to support your daily activities, as well as your performance in sports and exercise.

Importance of Endurance

Increasing your muscular endurance will make everyday chores and tasks easier. Training muscular endurance will increase your stamina — you'll have more energy to go from your job to playing with your kids, for example.

You will find that performing repetitious physical activity — such as gardening, raking leaves and washing your car — will become less fatiguing, too. Emphasizing the importance of endurance in your training will also limit injuries sustained from physical exertion and from the overuse of active muscles throughout the day.

How to Train Muscular Endurance

There is a particular way to train your muscles to go the distance rather than training them to exert short-term brute force. Resistance exercises, such as body weight exercises, weightlifting or plyometrics, should be performed for higher repetitions — typically 12 or more per exercise with light to moderate weight. Take shorter rest breaks in between sets to get your muscles used to prolonged stress.

Benefits of Muscular Endurance Activities

Performing muscular endurance activities goes further than just improving the health of your muscles. Muscular endurance training has beneficial effects on bone and joint health, too. These effects may decrease the risk of osteoporosis and bone fractures.

Additionally, when your muscles can perform tasks without becoming easily fatigued, you're less likely to injure yourself. Muscular fatigue is a major factor in accidents that cause muscle strains and bone fractures.

Muscular endurance benefits also include boosted metabolism, helping you burn calories to maintain a healthy weight or lose weight.

Endurance in sports

Endurance training is essential for a variety of endurance sports. A notable example is distance running events (800 meters upwards to marathon and ultra-marathon) with the required degree of endurance training increasing with race distance. Two other popular examples are cycling (particularly road cycling) and competitive swimming. These three endurance sports are combined in triathlon. Other sports for which extensive amounts of endurance training are required include rowing and cross-country skiing. Athletes can also undergo endurance training when their sport may not necessarily be an endurance sport in the whole sense but may still demand some endurance. For instance aerobic endurance is necessary (to varying extents) in racket sports, football, rugby, martial arts, basketball and cricket. Endurance exercise tends to be popular with non-athletes for the purpose of increasing general fitness or burning more calories to increase weight loss potential.

Importance in Sports and Exercise

Muscular endurance will benefit your athletic and recreational activities. Developing muscular endurance will allow you to perform activities for longer before fatigue sets in.

If you ever wanted to run a little farther, hike an incline a little longer or jump for that rebound in the last minutes of a basketball game but could not due to muscular fatigue, boosting your muscular endurance will help. After muscular endurance training,

your muscles will be able to sustain a load — such as your body weight or a back pack — for longer periods, and they will do so more efficiently.

Physiological effects

Long-term endurance training induces many physiological adaptations both centrally and peripherally mediated. Central cardiovascular adaptations include decreased heart rate, increased stroke volume of the heart, increased blood plasma, without any major changes in red blood cell count, which reduces blood viscosity and increased cardiac output as well as total mitochondrial volume in the muscle fibers used in the training (i.e. the thigh muscles in runners will have more mitochondria than the thigh muscles of swimmers). Mitochondria increase in both number and size and there are similar increases in myoglobin and oxidative enzymes. Adaptations of the peripheral include capillarization, that is an increase in the surface area that both the venous and arterial capillaries supply. This also allows for increased heat dissipation during strenuous exercise.

Risks of excessive endurance training

The potential for negative health effects from long-term, high-volume endurance training have begun to emerge in the scientific literature in recent years. The known risks are primarily associated with training for and participation in extreme endurance events, and affect the cardiovascular system through adverse structural remodeling of the heart and the associated arteries, with heart-rhythm abnormalities perhaps being the most common resulting symptom. Endurance exercise can also reduce testosterone levels.

Methods and training plans

Common methods for training include periodization, intervals, hard easy, long slow distance, and in recent years high-intensity interval training. The periodization method is very common and was accredited to Tudor Bompa] and consists of blocks of time, generally 4–12 weeks each. The blocks are called preparation, base, build and race. The goal of a structured training program with periodization is to bring the athlete into peak fitness at the time of a big race or event.

- ❖ Preparation as the name suggests lays the groundwork for heavier work to follow. For a runner contemplating a competitive marathon the preparation phase might consist of easier runs of 1–4 miles 3–4 times per week and including 2–3 days of core strengthening.
- ❖ In the base phase the athlete now works on building cardiovascular endurance by having several long runs staying in heart rate zone 1–1 every week and each week adding slightly more mileage (using 10% rule for safely increasing the mileage). Core strengthening is continued in the base period.
- ❖ Once the base phase is complete and the athlete has sufficient endurance, the build period is needed to give the athlete the ability to hold a faster pace for the race duration.
- ❖ The build phase is where duration of runs is traded for intensity or heart rate zones 3–5. An easy method to obtain intensity is interval training and interval training starts to happen in the build phase.
- ❖ Through interval training during the build phase the athlete can achieve higher lactate threshold and in some athletes VO₂ max is increased. Because interval training is demanding on the body, a professional coach should be consulted.
- ❖ In the very least the athlete should do a warm up and active stretching before the interval session and static stretch or yoga after hard interval sessions. It is also advisable to have days of rest or easy workouts the day after interval sessions.

Finally, the race phase of the periodization approach is where the duration of the workouts decreases but intense workouts remain to keep the high lactate threshold that was gained in the build phase. In Ironman training, the race phase is where a long "taper" occurs of up to 4 weeks for highly trained Ironman racers. A final phase is designated

transition and is a period of time, where the body is allowed to recover from the hard race effort and some maintenance endurance training is performed so the high fitness level attained in the previous periods will not be lost.

Traditionally, strength training (the performance of exercises with resistance or added weight) was not deemed appropriate for endurance athletes due to potential interference in the adaptive response to the endurance elements of an athlete's training plan. There were also misconceptions regarding the addition of excess body mass through muscle hypertrophy (growth) associated with strength training, which could negatively affect endurance performance by increasing the amount of work required to be completed by the athlete. However, more recent and comprehensive research has proved that short-term (8 weeks) strength training in addition to endurance training is beneficial for endurance performance, particularly long-distance running.

Devices to assess endurance fitness

The heart rate monitor is one of the relatively easy methods to assess fitness in endurance athletes. By comparing heart rate over time fitness gains can be observed when the heart rate decreases for running or cycling at a given speed. In cycling the effect of wind on the cyclists speed is difficult to subtract out and so many cyclists now use power meters built into their bicycles. The power meter allows the athlete to actually measure power output over a set duration or course and allows direct comparison of fitness progression. In the 2008 Olympics Michael Phelps was aided by repeated lactate threshold measurement. This allowed his coaches to fine tune his training program so that he could recover between swim events that were sometimes several minutes apart. Much similar to blood glucose for diabetes, lower priced lactate measurement devices are now available but in general the lactate measurement approach is still the domain of the professional coach and elite athlete.

Conclusion

Aerobic exercise (also known as cardio) is physical exercise of low to high intensity that depends primarily on the aerobic energy-generating process. What is generally called aerobic exercise might be better termed "solely aerobic", because it is designed to be low-intensity enough so that all carbohydrates are aerobically turned into energy. Muscular endurance is your muscles' ability to perform repetitive motions — lengthening and contracting — over long periods without getting tired. The purpose of muscular endurance is to improve performance in your sport and exercise activities.

Aerobic fitness is associated with cardio metabolic risk factors. Some studies, but not all, have reported an association of cardiovascular risk factors with muscular strength, but these associations attenuated after adjusting for aerobic fitness. In addition to traditional cardio metabolic risk factors measured from the blood, novel metabolomics platforms provide a way to understand the mechanisms associated with the development of diseases. Recently, it has been shown how differing physical activity levels are associated with serum metabolome measures.

To our knowledge, little research has been conducted on the associations of physical fitness with serum metabolome measures using valid measures of aerobic fitness and muscular strength among humans without diseases or predecease conditions. The skeletal muscle system is the largest and metabolically active organ system in the human body and contributes to the serum metabolome measures associated with aerobic and muscular fitness.

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A STUDY ON -SPORTS ADVERTISING AND TYPES, BENEFITS & EXAMPLES

Aneelkumar Y.Munnolli

Lecturer, B.V.V.Sangha's

Basaveshwar College of Physical Education, Vidyagiri, Bagalkote

ABSTRACT

In the vast world of advertising, there's a niche that has grown exponentially over the years, capturing the hearts and minds of millions: sports advertising. This form of advertising, deeply rooted in the passion and excitement of sports, has become a cornerstone for many brands, especially in a country like India, where sports are an integral part of the cultural fabric.

Keywords: products, services, brands, Promotion, Products and service, Culture

Introduction

Sports advertising refers to the promotion of products, services, or brands through sports events, teams, or personalities. It's a symbiotic relationship where brands leverage the popularity and emotional connection of sports to enhance their visibility and appeal.

- Emotional Connection: Sports evoke strong emotions. Associating a brand with a sport or a sports personality can create a deep emotional connection with the audience.
- Mass Appeal: Millions, making them an ideal platform for widespread brand exposure, watch major sports events.
- Targeted Demographics: Different sports attract different demographics. Brands can choose a sport that aligns with their target audience.

Sports advertising stands out as a unique and powerful tool that brands to leverage and connect with audiences. But how exactly does this niche form of advertising operate? Let's delve deeper.

1. The Emotional Quotient

At its core, sports advertising thrives on emotion. The adrenaline rush of a last-minute goal, the collective sigh when a ball narrowly misses the basket, or the euphoria of a cricket boundary in the final over – these moments create memories. Brands aim to intertwine their message with these emotions, ensuring that the joy, anticipation, or even the heartbreak associated with a game is subtly linked to their product or service.

2. Platforms of Engagement

Sports advertising isn't just about flashing a logo during a game. It encompasses a range of platforms:

- ❖ Event Sponsorships: Brands can sponsor entire tournaments or series. The Indian Premier League (IPL) has seen a slew of sponsors over the years, with each gaining massive visibility.
- ❖ Team Sponsorships: By sponsoring a team, brands get their logos on jerseys, training gear, and other merchandise. This not only ensures visibility during matches but also when fans buy and wear this merchandise.
- ❖ Athlete Endorsements: Athletes, with their massive fan following, can influence purchasing decisions. When an athlete endorses a product, it often gains credibility in the eyes of their fans.
- ❖ In-stadia Advertising: This includes billboards,



digital screens, and even activities during game breaks, ensuring that the brand remains in the audience's line of sight.

3. The Digital Shift

The digital age has transformed sports advertising. Live streaming, social media campaigns, and interactive apps have become crucial tools. Brands can now engage with fans in real-time, run polls, host contests, or even create fantasy leagues. This interactive form of advertising ensures higher engagement and recall.

4. The Art of Storytelling

Successful sports advertising often tells a story. It could be the journey of an athlete, the legacy of a team, or the spirit of a game. By weaving narratives, brands create a deeper connection. For instance, Nike's campaigns often focus on the spirit of perseverance, aligning it with the challenges and triumphs of sports.



5. Challenges and Adaptations

Sports advertising, while impactful, comes with its set of challenges. The primary one being the cost. Prime advertising spots, especially during major events, come with hefty price tags. There's also the challenge of standing out amidst the clutter, with multiple brands vying for attention.

However, the world of sports marketing is adaptive. With changing viewer habits, especially the shift towards digital platforms, brands are finding innovative ways to engage. Augmented reality (AR) experiences, virtual meet-and-greets with athletes, or interactive game simulations are just a few examples of how sports advertising is evolving.

Types of Sports Advertisements

Over the years, sports advertising has matured, giving birth to a variety of types, each with its distinct strategies and advantages.

- Sponsorships stand at the forefront of sports advertising. This involves brands associating themselves with a sports event, team, or individual athlete by offering financial support or resources. In return, they gain advertising rights. A classic example is the logo of a brand like Oppo emblazoned on the jersey of the Indian cricket team. Events, too, often bear the names of their sponsors, such as the "Vivo Indian Premier League." These sponsorships not only offer brands enhanced visibility but also allow them to engage fans directly through on-ground activations during events.
- Then we have Endorsements, where sports personalities become the face of a brand or product. These athletes lend their fame, credibility, and persona to the brand, creating a personal and trustful connection with the audience. Iconic commercials, like those where cricket legend Sachin Tendulkar endorsed Boost, remain etched in the memories of fans. Athletes might also use branded gear during events or give shoutouts on social media, further solidifying the brand's presence in the minds of the audience.
- Merchandising is another significant avenue. Here, the allure of sports is transformed into tangible products. Teams often sell official merchandise, from jerseys to caps. During IPL seasons, for instance, fans are seen donning jerseys of their favorite teams, be it Mumbai Indians or Chennai Super Kings. Some athletes even venture into launching their product lines, like



Virat Kohli's collaboration with Puma for 'One8'. This not only generates direct revenue but also strengthens brand loyalty, with fans cherishing the products associated with their sports idols.

- In-game Advertising is a more subtle yet impactful approach. This type of advertising seamlessly integrates into the live broadcast of sports events. Whether it's commercials during game intervals, branded scorecards, or even strategic placements within stadiums, brands find innovative ways to capture viewers' attention. A cricket match, for instance, might feature boundary ropes bearing a brand's name or digital overlays during live telecasts. This method ensures that brands remain in the viewer's sight, especially during peak moments of engagement.
- Lastly, the digital age has given rise to Digital and Social Media Campaigns in sports advertising. Brands now collaborate with athletes for posts, challenges, or even live interactions on platforms like Instagram and Twitter. These campaigns, often interactive and innovative, have the potential to go viral, ensuring organic brand visibility. Behind-the-scenes content, exclusive interviews, or even interactive Q&A sessions with athletes offer fans a closer look, making the brand's presence more personal and engaging.

Programmatic in Sports Advertising

India, predominantly known as a cricket-loving nation, has seen a surge in the popularity of other sports like kabaddi, football, and badminton. Events like the Indian Premier League (IPL), Pro Kabaddi League (PKL), and Indian Super League (ISL) attract millions of viewers, both on television and digital platforms. This diverse viewership provides a fertile ground for targeted advertising, making programmatic an invaluable tool.

- a) Precision Targeting: With programmatic, brands can target specific demographics based on viewing habits, interests, and online behavior. For instance, a brand selling sports equipment can target viewers who have recently searched for sports gear online during an IPL match.
- b) Real-time Analytics: Programmatic platforms provide real-time data on ad performance. Brands can assess which sports events or time slots yield the best engagement and adjust their strategies accordingly.
- c) Cost Efficiency: The auction-based system ensures brands only pay for ad impressions that are relevant to their target audience, ensuring better utilization of advertising budgets.



The Digital Surge and Programmatic

The rise of OTT (Over-the-Top) platforms like Hotstar, SonyLIV, and JioTV has transformed sports viewership in India. With more people streaming sports events on their smartphones and smart TVs, the digital space offers a goldmine for advertisers. Programmatic advertising, with its precision targeting and real-time analytics, is perfectly poised to leverage this digital shift.

Ex: Hotstar and IPL

Hotstar, India's premier streaming platform, witnessed record-breaking viewership during the IPL seasons. Leveraging programmatic advertising, brands could place ads tailored to individual viewer preferences, enhancing engagement. The platform's interactive features, like the 'Watch'N Play' game, further provided brands with innovative ad placement opportunities, all powered by programmatic algorithms.

Challenges in Programmatic Sports Advertising

While programmatic offers numerous advantages, it's not without challenges:

- a) Ad Fraud: Automated systems can sometimes display ads on irrelevant or low-quality platforms, leading to wasted impressions.
- b) Data Privacy Concerns: With increasing scrutiny on data collection and usage, brands need to ensure that their programmatic strategies are compliant with privacy regulations.
- c) Technology Infrastructure: The success of programmatic advertising relies heavily on robust technological infrastructure. In some parts of India, where internet connectivity is still evolving, ensuring seamless ad delivery can be a challenge.

Sports Advertising Strategies

Sports Advertising offers brands a unique opportunity to engage with their target market. To harness this potential, brands employ a variety of sports advertising strategies. Let's delve into some of the most effective ones.



1. Sponsorships: One of the most prevalent strategies, sponsorships involve brands associating themselves with a particular team, event, or athlete. This association allows the brand to leverage the popularity and reach of the sport or athlete. For instance, PepsiCo's title sponsorship of the Indian Premier League (IPL) cricket tournament allowed the brand to be at the forefront of one of India's most-watched sporting events.
2. Athlete Endorsements: Brands often rope in popular athletes to endorse their products or services. These endorsements work because fans tend to trust and idolize their sporting heroes. When Virat Kohli, a renowned cricketer, endorses a brand, it immediately gains credibility and appeal among his vast fanbase.
3. In-game Advertising: This strategy involves placing ads within the game environment. It could be in the form of billboards in a stadium, logos on player jerseys, or even virtual ads superimposed on the field during live telecasts. This subtle form of advertising ensures that the brand remains visible throughout the game's duration.
4. Digital Engagement: With the proliferation of smartphones and the internet, digital platforms have become a vital avenue for sports advertising. Brands create interactive campaigns, contests, and apps centered around sporting events. For example, brands might launch fantasy leagues during a sports season, encouraging fans to engage and interact with the brand regularly.
5. Merchandising: Selling products associated with a particular team or athlete is another effective strategy. From team jerseys to signature sports equipment, fans are always eager to own merchandise that connects them to their favorite sports personalities or teams.
6. Experiential Marketing: This involves creating immersive experiences for fans. Brands might set up virtual reality (VR) zones where fans can experience a game from the player's perspective or organize meet-and-greet events with popular athletes. Such experiences create lasting memories and a deeper connection between the brand and its audience.
7. Content Creation: Brands are increasingly investing in creating sports-related content. This could be in the form of documentaries, behind-the-scenes footage, or even podcasts. Such content provides added value to fans and positions the brand as more than just a sponsor – but as a contributor to the sports ecosystem.

8. Grassroots Engagement: Instead of focusing solely on big-ticket events, some brands engage at the grassroots level, sponsoring local teams or organizing community sports events. This strategy helps brands build a genuine connection with local communities and fosters loyalty.

Emerging strategies in sports advertising

- Leverage Influencer Partnerships For Sports Sponsorship

Collaborating with influencers can open doors to new segments of your desired audience. Such partnerships not only bolster trust and authenticity but also amplify brand visibility and revenue generation. Brands often engage figures revered by their audience to endorse their offerings. This strategy instills immediate trust in the audience. Termed as ‘ethos advertising’, it fosters customer loyalty by leveraging the credibility of icons or influencers.

Given the growing skepticism towards traditional advertisements, audiences now prefer endorsements from personalities they respect. Hence, marketers collaborate with sports teams, athletes, and sports-centric media personalities for promotional campaigns and content generation.



- Amplify Engagement Through Social Media And Community Building

Neglecting the potential of social media in sports marketing is a missed opportunity. Platforms like Facebook, Instagram, and LinkedIn are ideal for sharing content that resonates with sports enthusiasts. Integrating influencers on these platforms can further enhance your brand’s outreach. The persuasiveness of smartphones and social media has reshaped our engagement with sports. Platforms like Facebook, Twitter, and YouTube facilitate easy access to cherished content.

- Social Media Is Now Indispensable For Brands To Disseminate Content, Initiate Ad Campaigns, Engage New Audiences, And Boost Interactivity.

This digital evolution has influenced various facets of sports, from communication and events to sponsorships. Prominent examples include the promotional strategies of the FIFA World Cup and the Premier League, which attract millions through both TV and online campaigns.

The success of these leagues on social media is largely attributed to passionate fans who ardently engage with their preferred teams or athletes.

- Innovate In Ad Campaigns Without Resorting To Click-Bait

While digital advertising has simplified audience reach, it has also made promotional strategies more intricate. Many marketers resort to attention-grabbing tactics, including click-bait headlines. Merely intriguing ads no longer suffice. Brands must infuse creativity into their promotional content to stand out. In this competitive landscape, innovation is key.

Campaigns should highlight the unique attributes of your product or service, distinguishing it from competitors. Highlighting your brand’s superior aspects can capture a larger market share and pique interest.

- Place Your Sports Enthusiasts And Consumers At The Forefront

While factual data is valuable, it might lack appeal. Brands must craft ads that resonate emotionally with consumers. Incorporate narratives, visuals, and testimonials. Research indicates that customer-centric ads yield prolonged and enhanced results.

By tuning into audience preferences and conducting thorough market research, brands can tailor ads that resonate deeply. When consumers perceive an ad as personalized, they are more inclined to explore the product or service.

➤ Refine Your Ad Strategies

The significance of SEO in advertising cannot be overstated. Every advertising endeavor should be meticulously optimized. While TV once dominated viewership, online ads require a different approach. Brands employ SEO to ensure their ads reach the intended audience. By analyzing data from their target demographic, they can discern the most frequented platforms and tailor their ads for maximum impact.

Ad Targeting in the Age of Streaming

The rise of streaming platforms like Hotstar, combined with the nation's undying passion for cricket, has reshaped the advertising landscape in India. Marketers now have a plethora of tools at their disposal to refine their ad targeting, ensuring that their message reaches the right audience at the right time.

- ❖ Behavioural Targeting: Are you reaching out to a cricket enthusiast who also enjoys Bollywood movies and shops at Big Bazaar? Or perhaps they're a cricket fan who's into fantasy sports leagues? By understanding interests, hobbies, and online activities, advertisers can craft messages that resonate deeply.
- ❖ Contextual Targeting : Beyond the IPL matches or the T20 World Cup, what are viewers consuming? Is it a comedy show, a historical drama, or perhaps an action-packed Bollywood thrillers? By analyzing viewing history, marketers can align their ads with the content preferences of their audience.
- ❖ Time-of-Day Targeting : While many tune into live cricket matches, others might catch the highlights later in the evening. Understanding when your audience is most active allows for timely ad placements, ensuring maximum attention.
- ❖ Technographic Targeting : Is your viewer streaming the latest cricket match from a high-end smartphone or an older desktop? By understanding device characteristics, marketers can optimize the ad experience for each viewer.
- ❖ Geographic Targeting : India is diverse, and so are its viewing habits. While some might be streaming a cricket match from a café in Mumbai, others could be watching from their homes in Kolkata. Real-time location data, combined with insights into regular physical destinations, offers a rich tapestry for ad targeting.
- ❖ Demographic Targeting : Objective data points such as hometown, income bracket, and education level can provide invaluable insights. For instance, a luxury brand might target urban audiences with higher disposable incomes.
- ❖ Automatic Content Recognition (ACR) Targeting : By analyzing what viewers have historically watched or are currently watching, be it the IPL, a Test series, or a popular Indian series, marketers can tailor their ads to align with viewing habits.
- ❖ Purchasing Targeting : Understanding a viewer's spending habits, from their preferred e-commerce platforms to specific brands they favour, can be a goldmine for advertisers. This data helps in crafting offers and messages that are more likely to convert.
- ❖ First-Party Data/CRM Activation : Leveraging an existing database of past or current customers allows for hyper-focused ad campaigns. For instance, a brand could target viewers who have previously purchased cricket merchandise or subscribed to sports packages.



Sports Advertising Examples

Sports have an unparalleled reach, making them a formidable tool in the marketing arena. When done right, sports marketing can captivate fans, fostering deeper brand loyalty

and affinity. Over time, many companies have tapped into the magic of sports, crafting unforgettable marketing narratives.

Here's a tribute to some iconic sports marketing campaigns, from Nike's impactful "Dream Crazy" to Pepsi's cricket-centric "Change the Game". Let's explore.

- ❖ Dream Crazy (2018) – Nike : In 2016, NFL's Colin Kaepernick knelt during the national anthem, protesting racial injustice in the US. This act, though controversial, became a symbol of protest. By 2018, Nike boldly chose Kaepernick for its "Dream Crazy" campaign. The ad, featuring Kaepernick's words, "Believe in something. Even if it means sacrificing everything. Just do it," reinvigorated Nike's classic slogan, aligning with a significant social issue. Despite some backlash, the campaign was a triumph, boosting Nike's stocks and earning numerous awards.
- ❖ Rule Yourself (2015) – Under Armour : Ahead of the 2016 Rio Olympics, Under Armour unveiled its "Rule Yourself" campaign. It showcased various brand ambassadors, from Michael Phelps to Misty Copeland. The standout was Phelps's ad, highlighting his behind-the-scenes challenges, ending with "It's what you do in the dark that puts you in the light." This campaign spotlighted athletes' dedication and hard work, contributing to Under Armour's impressive revenue growth in 2016.
- ❖ Pelé and the Pause (1970) – Puma : In a unique marketing move during the 1970 World Cup, Puma paid Brazilian star Pelé to take an unusually long time tying his shoelaces. This simple act, ensuring all eyes were on him (and his Puma shoes), led to a whopping 300% sales increase for Puma.
- ❖ Change the Game (2011) – Pepsi : Pepsi demonstrated that sports marketing isn't exclusive to sports brands with its "Change the Game" campaign during the 2011 Cricket World Cup. The ads showcased cricket legends like M S Dhoni and their signature moves, encouraging the youth to challenge norms. This campaign earned Pepsi multiple awards at the EFFIE India Awards 2011.
- ❖ Secret Tournament (2002) – Nike : Nike's "Secret Tournament" campaign, aligned with the 2002 FIFA World Cup, was a creative masterpiece. It featured top footballers in a unique tournament setting, with Eric Cantona as the referee and a catchy Elvis remix as the backdrop. The campaign's success was evident in its global impact and the subsequent grassroots tournaments it inspired.
- ❖ Pepsi and the 'Oh Yes Abhil' Campaign : Pepsi, a brand synonymous with youth and vibrancy, has had a long-standing association with cricket in India. Their 'Oh Yes Abhil' campaign, launched during the IPL season, captured the impatience and immediacy of the youth. Featuring prominent cricketers like MS Dhoni, Virat Kohli, and Suresh Raina, the campaign resonated with the audience, making them feel the urgency of 'now'. The blend of popular culture, cricket, and the spirit of immediacy made this campaign a massive hit.
- ❖ Nike's 'Da Da Ding' Campaign : Nike's 'Da Da Ding' was not just an advertisement; it was a movement. Celebrating the power and spirit of Indian sportswomen, the campaign showcased athletes from diverse fields, from hockey and football to boxing. Set to a catchy tune, the ad was both empowering and inspiring, urging women to recognize their strength and potential. It broke the stereotype that sports in India is a male-dominated arena, highlighting the achievements and aspirations of Indian sportswomen.
- ❖ Dream11's 'Yeh Game Hai Mahaan' Campaign : Dream11, a fantasy sports platform, tapped into India's cricketing obsession with its 'Yeh Game Hai Mahaan' campaign. The advertisements showcased everyday cricket enthusiasts passionately engaging with the sport, be it playing in narrow alleys or meticulously analyzing player statistics. By emphasizing that every fan is an integral part of the cricketing ecosystem, Dream11 successfully positioned itself as a platform for the true cricket aficionado.

- ❖ Cadbury's 'KuchKhaas Hai' Campaign with Cricket : Cadbury, though primarily a chocolate brand, smartly integrated cricket into its advertising narrative. One of its memorable ads from the 90s featured a young woman joyously dancing onto a cricket field after a player hits a boundary. The spontaneity of the moment, combined with the tagline 'KuchKhaas Hai', emphasized the special feeling both cricket and Cadbury chocolates evoke.
- ❖ Hero MotoCorp and the Hockey World Cup : While cricket dominates the sports advertising landscape in India, other sports have also found their spotlight. Hero MotoCorp's association with the Hockey World Cup is a testament to this. Their campaign, emphasizing the speed, strategy, and skill of hockey, brought attention to a sport that has historically been significant for India. By showcasing intense training sessions, on-field strategies, and the sheer passion for the game, Hero positioned itself as a brand that champions the spirit of perseverance.
- ❖ GoDaddy's Campaign with MS Dhoni : GoDaddy, a domain registration company, leveraged the popularity of MS Dhoni, former Indian cricket captain, for its campaign. The advertisements humorously showcased Dhoni as a small business owner, emphasizing the ease of creating an online presence with GoDaddy. The blend of humor, Dhoni's massive fan following, and the brand's message made the campaign relatable and memorable.

Sports Advertising Agency

The Media Ant is one of the top sports advertising agencies since it provides a variety of services to assist businesses in reaching their target market. Strategic planning, and media planning are all available. The Media Ant also has a large network of publishers, advertisers, and media sources, which allows businesses to reach a large audience.

Furthermore, the firm has an experienced team of specialists that can give customized solutions to each business's demands.

Conclusion

A sports advertisement is a marketing strategy that promotes products, services, or brands through sports events, teams, or personalities. To advertise a sports product, brands can use event sponsorships, athlete endorsements, in-game placements, or digital campaigns targeting sports enthusiasts. Sports advertising includes event sponsorships, team sponsorships, athlete endorsements, in-stadia advertising, and digital sports-related campaigns.

The biggest advantage of sports advertising is its ability to tap into the deep emotional connection fans have with sports, ensuring high engagement and brand recall.

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FACTORS SUCH AS PHYSICAL ACTIVITY BODY MASS INDEX AND MOTOR FITNESS HAVE A PROFOUND EFFECT ON OUR HEALTH

Anusha.K.G

Research Scholar

Karnataka State Akkamahadevi Women's University, Vijayapura

Dr.Kiran.G.N

Assistant Professor & Research Guide

Dept of Studies in Physical Education & Sports Science
Karnataka State Akkamahadevi Women's University, Vijayapura

ABSTRACT

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure. The energy expenditure can be measured in kilocalories. Physical activity in daily life can be categorized into occupational, sports, conditioning, household, or other activities. Exercise is a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or skill-related. Being physically fit has been defined as "the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure-time pursuits and to meet unforeseen emergencies." The degree to which people have these attributes can be measured with specific tests. Physical fitness measures are closely allied with disease prevention and health promotion, thus it is common and appropriate to measure components of physical fitness before preventive and rehabilitative programs. Physical fitness can be modified through regular physical activity and exercise. Physical fitness components have been shown to have a significant positive relationship with enhanced outcomes in physical activity, including sports participation.

Keywords: Body mass index (BMI), physical fitness, longitudinal data, overweight, obese

Introduction

Over the past few decades, a gradual increase in sedentary lifestyles along with the increased consumption of a modern, hypercaloric diet has resulted in a substantial increase in the number of those classified as overweight or obese in China. The prevalence of overweight and obesity has become a key public health issue. However, it is important to be cautious when interpreting the literature as the majority of studies apply cross-sectional data to assess and subjectively compare the relationship between physical fitness and being overweight and obese. In the present study, longitudinal data were collected from 3066 students (enrolled in 2014) at a university in China at the beginning of each academic year throughout their four-year university program. The aim of this study was to analyze the various associations between BMI, explosive power, flexibility, and cardiorespiratory endurance, and a random-intercept panel model (RIPM) was separately employed on male and female participants to identify between- and within-person variations. In this way, the associations for between-person physical fitness and normal/overweight/obese weight ranges, and for within-person physical fitness and normal/overweight/obese weight ranges could be observed. The results of this study revealed that every physical fitness test chosen for evaluation (such as the standing long jump for explosive power or the distance run for cardiorespiratory endurance) was negatively related to the BMI results, irrespective of sex, with the notable exception of the flexibility results. In addition, this study showed that both males and females exhibited positively correlated results in both between-person BMI and

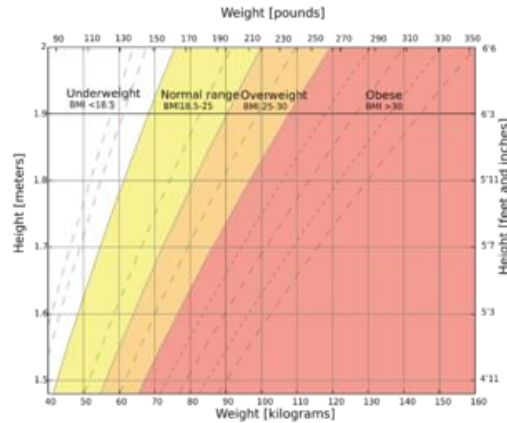
flexibility as well as within-person BMI and flexibility. Furthermore, the relationships between and within persons of cardiorespiratory endurance, explosive power, and flexibility all showed positive correlations across both sexes. The dynamics between physical fitness and BMI identified in this study could prove useful to practitioners and researchers investigating such relationships in the future.

Body Mass Index

Introduction

Body mass index, or BMI, is used to determine a person's healthy weight range for their height.

- It is useful to consider BMI alongside waist circumference, as waist measurement helps to assess risk by measuring the amount of central fat.
- BMI is a useful measurement for most people over 18 years old. However it is only an estimate and not taking into account age, ethnicity, gender and body composition.
- At the cellular level, an increase or decrease in BMI can have a significant effect on physiology. Research has shown associations with BMI to insulin resistant states, inflammatory states, and cognition.



Definition and Classification

Body mass index or BMI is a statistical index using a person's weight and height to provide an estimate of body fat in males and females of any age. It is calculated by taking a person's weight, in kilograms, divided by their height, in meters squared, or $BMI = \text{weight (in kg)} / \text{height}^2 \text{ (in m}^2\text{)}$. The number generated from this equation is then the individual's BMI number. Individual variations do exist, and BMI is insufficient as the sole means of classifying a person as obese or malnourished.

- in elite athletes and body-builders, an elevated BMI does not directly correlate to their health status due to their increased muscle mass and weight falsely increasing their BMI.^[3]



The BMI number and classifications are listed below, these classifications for BMI are in use by the NIH and the World Health Organization (WHO)

White, Hispanic and Black individuals

- Severely underweight - BMI less than 16.5 kg/m²
- Underweight - BMI under 18.5 kg/m²
- Normal weight - BMI greater than or equal to 18.5 to 24.9 kg/m²
- Overweight - BMI greater than or equal to 25 to 29.9 kg/m²
- Obesity - BMI greater than or equal to 30 kg/m²

Asian and South Asian Population:

- Overweight - BMI between 23 and 24.9 kg/m²;
- Obesity - BMI greater than 25 kg/m²

Related Tests

When individuals are identified as an abnormal weight, certain testing should be done.

- A BMI greater than 30 kg/m²: a lipid panel, thyroid level, and diabetes screening should always be done. These patients should be counseled about a healthy diet and exercise.
- A BMI less than 18 kg/m²: thyroid level, comprehensive metabolic panel, psychiatric screening for an eating disorder, and conditions of malabsorption should be done. If weight loss was rapid and unintentional, a cancer workup should also be done.

CBC		
WBC	5.88	[10 ⁹ /L]
RBC	4.45	[10 ¹² /L]
HGB	136	[g/L]
HCT	0.396	[L/L]
MCV	89.0	[fL]
MCH	30.6	[pg]
MCHC	343	[g/dL]
RDW-CV	12.2	[%]
PLT	122	[10 ⁹ /L]
MPV	10.0	[fL]
RDW	12.2	[%]
Differential		
NEUT	3.47	[10 ⁹ /L]
LYMPH	1.96	[10 ⁹ /L]
MONO	0.31	[10 ⁹ /L]
EO	0.11	[10 ⁹ /L]
BASO	0.02	[10 ⁹ /L]
IG	0.01	[10 ⁹ /L]
NRBC	0.0	[/100WBC]

Physical activity

Key facts

- Physical activity has significant health benefits for hearts, bodies and minds
- Physical activity contributes to preventing and managing non communicable diseases such as cardiovascular diseases, cancer and diabetes
- Physical activity reduces symptoms of depression and anxiety
- Physical activity enhances thinking, learning, and judgment skills
- Physical activity ensures healthy growth and development in young people
- Physical activity improves overall well-being
- Globally, 1 in 4 adults do not meet the global recommended levels of physical activity
- People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active
- More than 80% of the world's adolescent population is insufficiently physically active.

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health. Popular ways to be active include walking, cycling, wheeling, sports, active recreation and play, and can be done at any level of skill and for enjoyment by everybody. Regular physical activity is proven to help prevent and manage noncommunicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being. WHO guidelines and recommendations provide details for different age groups and specific population groups on how much physical activity is needed for good health.

Benefits and risks of physical activity and sedentary behavior

Regular physical activity, such as walking, cycling, wheeling, doing sports or active recreation, provides significant benefits for health. Some physical activity is better than doing none. By becoming more active throughout the day in relatively simple ways, people can easily achieve the recommended activity levels.



Physical inactivity is one of the leading risk factors for noncommunicable diseases mortality. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active.

Regular physical activity can:

- improve muscular and cardiorespiratory fitness;
- improve bone and functional health;
- reduce the risk of hypertension, coronary heart disease, stroke, diabetes, various types of cancer (including breast cancer and colon cancer), and depression;
- reduce the risk of falls as well as hip or vertebral fractures; and
- help maintain a healthy body weight.

In children and adolescents, physical activity improves:

- physical fitness (cardiorespiratory and muscular fitness)
- cardiometabolic health (blood pressure, dyslipidaemia, glucose, and insulin resistance)
- bone health
- cognitive outcomes (academic performance, executive function)
- mental health (reduced symptoms of depression)
- reduced adiposity

In adults and older adults, higher levels of physical activity improves:

- risk of all-cause mortality
- risk of cardiovascular disease mortality
- incident hypertension
- incident site-specific cancers (bladder, breast, colon, endometrial, oesophageal adenocarcinoma, gastric and renal cancers)
- incident type-2 diabetes
- prevents of falls
- mental health (reduced symptoms of anxiety and depression)
- cognitive health
- sleep
- measures of adiposity may also improve



For pregnant and post-partum women

Physical activity confers the following maternal and fetal health benefits: a decreased risk of:

- pre-eclampsia,
- gestational hypertension,
- gestational diabetes (for example 30% reduction in risk)
- excessive gestational weight gain,
- delivery complications
- postpartum depression
- newborn complications,
- and physical activity has no adverse effects on birthweight or increased risk of stillbirth.

Health risks of sedentary behaviour

Lives are becoming increasingly sedentary, through the use of motorized transport and the increased use of screens for work, education and recreation. Evidence shows higher amounts of sedentary behaviour are associated with the following poor health outcomes:

In children and adolescents:

- increased adiposity (weight gain)
- poorer cardiometabolic health, fitness, behavioural conduct/pro-social behaviour
- reduced sleep duration

In adults:

- all-cause mortality, cardiovascular disease mortality and cancer mortality
- incidence of cardiovascular disease, cancer and type-2 diabetes.

Levels of physical activity globally

- More than a quarter of the world's adult population (1.4 billion adults) are insufficiently active
- Worldwide, around 1 in 3 women and 1 in 4 men do not do enough physical activity to stay healthy.
- Levels of inactivity are twice as high in high-income countries compared to low-income countries,
- There has been no improvement in global levels of physical activity since 2001
- Insufficient activity increased by 5% (from 31.6% to 36.8%) in high-income countries between 2001 and 2016.

How to increase physical activity?

Countries and communities must take action to provide everyone with more opportunities to be active, in order to increase physical activity. This requires a collective effort, both national and local, across different sectors and disciplines to implement policy and solutions appropriate to a country's cultural and social environment to promote, enable and encourage physical activity.

Policies to increase physical activity aim to ensure that:

- walking, cycling and other forms of active non-motorized forms of transport are accessible and safe for all;
- labour and workplace policies encourage active commuting and opportunities for being physically active during the work day;
- childcare, schools and higher education institutions provide supportive and safe spaces and facilities for all students to spend their free time actively;
- primary and secondary schools provide quality physical education that supports children to develop behaviour patterns that will keep them physically active throughout their lives;
- community-based and school-sport programmes provide appropriate opportunities for all ages and abilities;
- sports and recreation facilities provide opportunities for everyone to access and participate in a variety of different sports, dance, exercise and active recreation; and
- health care providers advise and support patients to be regularly active.

Motor-performance physical fitness

Motor-performance fitness is defined as the ability of the neuromuscular system to perform specific tasks. Test items used to assess motor-performance fitness include chin-ups, sit-ups, the 50-yard dash, the standing long jump, and the shuttle run (a timed run in which the participant dashes back and forth between two points). The primary physical characteristics measured by these tests are the strength and endurance of the skeletal muscles and the speed or power of the legs. These traits are important for success in many types of athletics. Muscular strength and endurance are also related to some aspects of health, as stated above.

There is disagreement among experts about the relative importance of health-related and motor-performance physical fitness. While both types of fitness are obviously

desirable, their relative values should be determined by an individual's personal fitness objectives. If success in athletic events is of primary importance, motor-performance fitness should be emphasized. If concern about health is paramount, health-related fitness should be the focus. Different types of fitness may be important not only to different individuals but also to the same individual at different times. The 16-year-old competing on a school athletic team is likely to focus on motor performance. The typical middle-aged individual is not as likely to be concerned about athletic success, emphasizing instead health and appearance. One further point should be made: to a great extent, motor-performance physical fitness is determined by genetic potential. The person who can run fast at 10 years of age will be fast at age 17; although training may enhance racing performance, it will not appreciably change the individual's genetically determined running speed. On the other hand, characteristics of health-related physical fitness, while also partly determined by inheritance, are much more profoundly influenced by exercise habits.

Principles of exercise training

Research in exercise training has led to the recognition of a number of general principles of conditioning. These principles must be applied to the development of a successful exercise program.

Specificity

The principle of specificity derives from the observation that the adaptation of the body or change in physical fitness is specific to the type of training undertaken. Quite simply this means that if a fitness objective is to increase flexibility, then flexibility training must be used. If one desires to develop strength, resistance or strengthening exercises must be employed. This principle is indeed simple; however, it is frequently ignored. Many fraudulent claims for an exercise product or system promise overall physical fitness from one simple training technique. A person should be suspicious of such claims and should consider whether or not the exercise training recommended is the type that will produce the specific changes desired.

Conclusion

The dynamics between physical fitness and BMI identified in this study could prove useful to practitioners and researchers investigating such relationships in the future. As per the findings of this study, the physical ability of university students is impaired as BMI increases beyond an average weight range. This negative influence not only affects explosive power and flexibility but also impacts cardiorespiratory endurance. This study shows that low levels of fitness (particularly seen in overweight or obese individuals) are associated with adverse health effects. It is important to remedy this issue most obviously by increasing physical activity. However, as mentioned, those with excess body mass may find their body mass itself an obstacle, making physical activity more difficult to engage in when compared to those of a normal weight range. A potential cycle may be observed in students who fear that their poor performance may lead to social rejection, causing them to be more reluctant to participate in physical activity, in turn leading to a failure to develop physical skills and fitness to succeed in the future. Such complex anxieties may require expert social, psychological, and technical support to break the cycle and increase the accessibility of physical activity, encouraging and supporting participation for those who need it most. It is recommended to increase university students' awareness of the importance of regular physical activity, helping students make informed health choices and develop better exercise habits to maintain their overall physical ability and a healthy physique. As a way to support their students, universities should offer a variety of physically active extracurricular activities to help encourage students to develop the aforementioned physical activity habits. Through the formation of more sports clubs and use of the College Students Sports Association, and with a wider variety for sporting completions and activities, students can find pleasure in cultivating healthy routines and increasing exposure to environments

conducive to developing a greater awareness of the positive impacts physical activity has on day-to-day life.

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IMPACT OF YOGIC ASANAS AND PRANAYAMA ON PHYSICAL AND MENTAL WELLBEING

Dr. Bhavya

Physical Education Teacher

Govt. High School, Mahadevapura Bore, Srirangapatna

ABSTRACT

Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and spiritual dimensions of the individual. "Yoga" means union of our individual consciousness with the Universal Divine Consciousness in a super-conscious state known as Samadhi. The first book of humankind, Rigveda, mentions about yogic meditation by the wise, while Yajurveda exhorts us to practice yoga for enhancing mental health, physical strength, and prosperity. Upanishads are replete with yogic concepts. In addition, yoga-related terms like pranayama and samadhi occur repeatedly in Bhagavad-Gita. Ancient Indian rishis understood that performing Raja-yoga (procedure of concentration to liberate soul or atma from the bondage of maya into paramatma) always need a healthy body – "Sharirmadyam, khalu dharma sadhanam." So they developed "Hatha yoga," which includes asana, mudra, pranayama, etc. "Gharanda samhita" said there were 84 lakh asanas from which 16 000 were best and only about 300 are popular.

Participation in yoga has increased dramatically amongst all demographic groups in recent decades. While studies have explored the physical and mental benefits of yoga, few have focused on the lived experiences of those practicing yoga and why they continue their involvement. Yoga is the art work of awareness on the canvas of body, mind and soul. Exercises are like prose. It is easier to build strong children than to repair broken adults. True Yoga is not about the shape of your body, but the shape of your life. Yoga is not to be performed; Yoga is to be lived. Yoga does not care about what you have been, Yoga cares about the person you are becoming. No one has time to spend for physical exercise. None of those days of walking for reaching office and school by cycling. Time is more than money for everyone. Cell phones and computers are part of our day-to-day life.

Keywords: *Demographic, yoga, profound, cycling, physical, exercise.*

INTRODUCTION

Human body is a marvelous piece of machinery invented by God. Proper maintenance of it keeps going without problems even in old age. The practice of Yogic Asana, Pranayama and Meditation is unquestionable, an ideal method to preserve the health and longevity of our body. Yoga is unique as it recuperates the entire system of the body. In the Yogic practice the mechanism is quite and restful. Soothing effect is provided by Asana, Pranayama and Meditation on all the organs of the body. The result is tranquility. The practice of Yoga does the internal massage of the cells. Blood flow is increased to the tissues with oxygen delivery. The question of accumulation of free radicals never arises with the practice of Yogic exercises. The mind is kept in constant contact with the cells during the practice of Yoga and the practitioner's awareness is so refined that he becomes conscious of the subtle functioning or malfunctioning of any part of the body. Yoga work on both gross and micro structures. Example for this is the effects on bone, cartilage and synovial lining can be directly observed as Yoga practiced. Certain practice of Yoga heals the area by their ability to remove the pent-up products of inflammation by intra articular massage. As practice of Yogic practices are both contraction and relaxations, both the softness and rigidity of connective tissue is preserved. Due to Yogic movements the body is shaped and sculpted so that fat formation is optimum and no extra accumulation of fat occurs.

Pranayama – literally “life-force control” – are controlling techniques for shifting your consciousness, purifying mind and body and raising your potential. The Pranayama is the mid part of patanjalis astanga yoga framework. The pranayama is inferred from two Sanskrit word "Prana" and 'ayama', Where "Prana" connotes Energy "ayama" connotes stretching. So the expression significance of pranayama is Elongation of pranic vigor. By regulating the breathing one can control the emotion and unnecessary contemplations: this is conceivable just by the act of pranayama. In the event that one practice the pranayama without a doubt he will get control over unnecessary musings pranayam have 3 steps they are: 1. Pooraka (Inhalation) 2. Rechaka (Exhalation) 3. Kumbhaka (Retention). The following are safe and very useful types of pranayama for depression, anxiety and for general wellbeing like Kapalabhati, Anuloma Viloma, Ujjayi, Bhastrika, Shitali, Sitkari, Suryabhedana and Bhramari

1. Meaning and concept of Yogic Asanas:

Before exploring different paths of yoga, it is of course, desirable to know the meaning and concept of Yoga first. Therefore, let us first see what Yoga is: this question can be answered well if we begin with the meaning and definitions of Yoga. The word “Yoga” is derived from the Sanskrit root “Yuj”, which means to “Yoke or Unite”. In later times, however, another technical meaning came to be associated with the term and this is derived from “Yujirsamadhu”, which means “Contemplation or absorption”. The oldest use of the word Yoga as found in the Vedic literature indicates a union of various things.

2. Sequences of practice of Yogic Asanas:

The Asanas are a part of a sacred science that comprehends all aspects of consciousness. Asanas are not only significant in themselves but also, they are the preparation for Pranayama and Meditation. They are reflecting not only a profound knowledge of the body but also of prana, spirit and mind of which the body is only an external image or manifestation. Asanas are mainly meant to help reduce Rajas or the quality of turbulence that disturbs the mind. The prana, Pranayama can't proceed smoothly without proper Asana to settle, the senses Pratyahara or control of the senses is almost impossible. The mind to concentrate and meditation (Dharana and Dhyana) are very difficult. Who have more interest in the deeper stages of Yoga they should not neglect Asanas? They benefit from a period of intense Asana practice for a few years as part of physical purification. Yoga in the true sense of deep meditation usually occurs when the body is in rest or in sitting posture. When doing deep meditation, concern about Asana fades away the physical body and its positions are forgotten.

3. Aims and importance of Yogic Asanas:

- Yogic Asanas improve posture of the body, the intake of oxygen is improved, enhancing the functioning of the respiratory, endocrine, digestive, reproductive and excretory system.
- The effect of Yogic Asanas on the emotions are equally beneficial by calming the body and mind, adapting us to the environment and diminishing insomnia caused by mind for mental restlessness.
- It is highly recommended for people in stressful working environment, competitive, for those who suffer from headaches, back aches and shoulder aches, asthma and allergies.
- Yogic Asanas also cures nervous breakdown, manic depression and behavioral disorder.
- The regular practice of Yogic Asanas helps us to accept whether mental or physical conditions we might be suffering from by increasing our immediate sense of well-being, calmness and concentration.
- Much more healing can be done, but it takes practice and consistency.
- You all have the capacity to self-destruct, particularly if things gone wrong.

- The mentality of the practitioner of the Yogic Asanas is that life is a tremendous gift and take responsibility for it.
- The Yogic Asanas gives capacity to face the life's challenges.
- When you respect your body, you tend to do things that will enhance its vitality.
- The part of Yogic Asanas practice is deep breathing, which helps to make the body more alkaline. Acid and alkaline ratios (80%alkaline and 20% acid) are crucial to good health.
- The Yogic Asanas works on a psychological level too.
- In Yogic Asanas position, one should concentrate on a total awareness of our energy and how its flows and one should learn how body and mind work together.
- Almost all exercises can be beneficial depending on the body condition and intent. By practicing Yogic Asanas ultimately, it leads towards long-term health and well-being.
- The Yogic Asanas improves posture, increases the oxygen intake level and improves physical fitness.
- It enhances the functioning of the respiratory, endocrine, digestive, reproductive and excretory systems.
- Its effect on the emotion is equally beneficial by calming the body and mind.
- All the systems of Yogic Asanas are important for Yogi. But the degree of importance may vary depending upon the nature of Yoga.
- Karma Yoga is useful for a person to develop the steadiness of the mind through selfless action.
- Applications of Bhakti Yoga principles help to achieve better emotional stability.
- Jnana Yoga provides knowledge, wisdom and insight, which are essential to lead a successful life.
- Hatha Yoga helps to have better control over the body.
- Regular practice of Yogic Asanas develops the coordinated action of body and mind and also develop concentration.
- The practice of Yogic Asanas at later age to lead a peaceful life and general form for the physiological discipline.
- The practitioner of Raja Yoga becomes the ruler mind and it is the Yoga will.
- The Yoga of mind culture or psychic control or Raja Yoga gives a practical and easy approach to reach higher state of consciousness.
- Yoga is an ideal method protecting the body and mind of the Yogi.

Effects of Yogic Asanas and Pranayama on Mental wellbeing

- **Yoga helps to reduce Anxiety and Depression:**

The two serious health concern damages are Anxiety and Depression. Practicing yoga daily Yoga can be effective to improve mental health. According to Harvard University article Yoga reduces Anxiety and Depression, it helps to regulate persons stress response.

- **Yoga gives strength to improve Concentration and Memory:**

In our daily life each one of us struggle with concentrating on day-to-day tasks. Yoga improves concentration and memory. The practice of concentration (there is a limb of Ashtanga Yoga known as Dharana) – it helps to understand the mind and calm senses.

- **Yoga improves psychological as well as mental well-being:**

The human life can be always stressful. Many persons can feel if they are carrying the whole world on their head. Practicing Yoga. Sets aside unwanted feeling, negative and over thinking. According to the British Psychological Society, Yoga involves concentration and is all about breathing techniques. A great way to relieve stress and sooth the mind.

- **Yoga reduces the effects of traumatic feelings:**

People develop Post Traumatic Stress Disorder (PTSD) as a result of unpleasant and powerful incidents in their life. The people with this mental illness frequently feel flashback and night mares. Hatha Yoga shows to be effective in reducing PTSD symptoms.

- **Relationships improvement through Yoga:**

Mindfulness is one of the most important aspects in Yoga. The mindfulness is all about heed to the emotions, sensations, thoughts and surrounding of the present movements. It can play a great part in helping present life style. Therefore, it plays a great role in improving qualitative relationships in life. It is the effect of soul also.

- **Positive impact on mood:**

Yoga has so many benefits like physiological benefits, emotional benefits, psychological benefits and so on associated with Yogic practice. Stress can cause a lot of health-related issues in the daily life of the human beings and may not know this; it can deeply affect moods.

Yoga can powerfully release endorphins in brains. Various studies have also hinted that Yoga can improve mood in the long terms. Sometimes all prey to mood swing but with the help of Yogic Asanas, Pranayama and Meditation, not only Yogic exercise improve health and reduce stress level but swings mood which will improve naturally.

- **Yoga helps to attain inner peace:**

Now a days, life is full of stress, most of which can be avoided and unwanted but how to keep oneself strong and calm at difficult times is what yoga is all about?

- **Yoga helps cope with wilderness:**

Life is all with ups and downs. Yoga helps to deal with in a positive way for hardship. It also allows to deal with anything that life throws at a more confident and calm manner.

Effects of Yogic Asanas and pranayama on Physical wellbeing

- **Yoga helps to assume increased flexibility:**

Flexibility is one of the most prominent benefits of Yoga. It is quite possible that one may not reach during first stint with Yoga but with patience and time, the body will experience incredible changes. According to a recent study conducted by Colorado State University Bikram Yoga (it is one of the Yoga) introduced the body to 26 different types of postures, providing increased hamstring, shoulder and lower back flexibility.

- **Yoga helps to lower blood pressure:**

An extremely common health concern is Hypertension, who experiences from mild or moderate hypertension might benefit from a regular Yoga practice. So many studies have found that who practiced Yoga on a regular basis have greater drops in blood pressure as compared to who participated in a weight, nutrition, walking various program alone.

- **Chronic neck pain reduces through Yoga:**

Yoga can be helpful for those who suffer from heavy and harmful neck pain and neck spasm. A German study says that four weeks of practicing B.K.S. Iyengar's Yoga can help to reduce the intensity of general neck pain and neck spasms in adults.

- **Yoga reduces the risk of heart disease:**

By reducing perceived stress and anxiety, yoga appears to modulate stress response systems. This, in turn decreases physiological arousal e.g., reducing the heart rate, lowering blood pressure, and easing respiration. There is also evidence that yoga practices help increase heart rate variability, an indicator of the body's ability to respond to stress more flexibly. The various researches also indicate that a regular Yoga practice may lower the risk of heart disease like high blood pressure, lower blood pressure, heart blocks, blood sugar level, cholesterol level, etc.

- **Yoga helps to build healthy normal bones:**

Now a day's old aged people are suffering from joint pains. Through so many weight-bearing postures, some accidents, yoga can strengthen bones and osteoporosis at bay.

Shavasana is helpful in strengthening the bones of arms and knees. Yoga increases the bone density. Yoga is a continuous process; it is important to keep in mind. That daily practicing of Yoga regularly can truly open the door to peace, love, harmony and laughter.

Physiology benefits of Yogic Asanas and pranayama

- Yoga practice acts on the joints unlike on any other system. The sensory nerve endings are razor sharp due to the stretch given by the Yoga and this in turn maintains the neuro-vascular functions of the skin. The flow of blood to skin is stimulated preventing senile changes. The skin is adducted, abduction, rotated and circumducted in practices of Yogic Asana, Pranayama and meditation. The practice of Yoga one can shunt blood to any other area consciously. As the geometric shapes of the Yoga vary. The massaging action of Yoga is valuable for the interstitial space (through which only the nutrients and oxygen pass from the blood to the cells) improving micronutrient by healthy lymphatic flow. Veins and arteries are massaged and kept flexible and atherosclerotic changes are prevented.
- The Pranayama strengthens the inner vital energy at micro cellular levels. Elasticity of lungs is maintained and oxygen inhalation is improved. The Asanas promote and maintain elasticity of ribs and intercostal muscles. Diaphragm is strengthened through Yoga practice. Yoga massages the entire gastro- intestinal tract. They promote expulsion of excessive wind, maintain peristalsis, blood freshness and blood supply of the tissues. All physiological functions of the body are toned up. Pancreas are benefited by movements of rotationally. Inverted and twisting poses that are very helpful for pancreas and all organs of the body. Asanas massages the lever and improve perfusion and also enhance elimination of toxins. Yogic practice improves the sensation of gall bladder, kidney and glandular. There are several minor and major plexuses of entire length of the body's nerves system.
- Practice of Yoga affects deeply the special senses. Yoga provides relaxation to the whole body by working through the special senses. The nerves of the ear, eye and face are relaxed. Practice become razor sharp in their functions. We can say that ultimately Yogic practice integrates and regulates all cellular functioning from movement to movement of the body. Pranayama is the science of breath controlling. It is a deliberate technique of inhalation, exhalation, retention of breath and the suspension of breath in exhalation. In Yoga, the mind and consciousness are withdrawn deep inside to the core of the being. This stabilizes and optimizes all functions of the body. The five elements, the organs of action and the organs of perception are coordinated. It prevents disease. Yoga is unique in that it recuperates the entire system of the body like Nervous system, Circulatory system, Respiratory system, Digestive system and Excretory system gets soothing effect and improves the functional efficiency. The mind is kept in the constant contact with the cells during practice of Yoga and practitioner is awareness is so refined that he becomes consciousness of the functioning of any of the body parts.

Risks of Yogasana and pranayama Practice.

Although many forms of yoga practice are safe, some are strenuous and may not be appropriate for everyone. Only one incident has been reported in the surveyed medical literature associated with the risks due to the practice of yoga is the case that has been reported is of a female practitioner developing thrombosis of vertebrobasilar artery due to an intimal tear and subsequent stroke. This was attributed to adopting an unusual neck posture during yoga practice. Yoga, although not entirely risk-free, can be considered a safe form of exercise if practiced under the guidance and supervision of a qualified trainer. But for many practitioners dealing with depression, anxiety, or stress, yoga may be a very appealing way to better manage symptoms. Indeed, the scientific study of yoga demonstrates that mental and physical heal are not just closely allied, but is essentially

equivalent. The evidence is growing that yoga practice is a relatively low-risk, high-yield approach to improving overall health.

There are some situations where practicing pranayama can be harmful and must be avoided. They are

- Those who have intense cold , cough and inflammation of the tonsils should not should not practice
- People with heart and blood pressure problems should not practice

Conclusion:

In summary, this review postulates that mind-body exercise such as yoga practioners sustained muscular activity with internally directed focus, producing a temporary self-contemplative mental state. It also triggers neurohormonal mechanisms that bring about health benefits, evidenced by the suppression of sympathetic activity. Thus, it reduces stress and anxiety, improves autonomic and higher neural center functioning and even, as shown in some studies, improves physical health of patients. However, there is a definite need for more directed scientific work to be carried out to elucidate the effects and the mechanisms of such effects of yoga on the human body in health. Considering the scientific evidences, it is fair to conclude that yoga can be beneficial for mental and physical wellbeing.

Pranayama in the other hand can significantly lower anxiety levels and any negative feelings associated with it. Regular pranayama practice can help with anxiety. It can also improve areas of mental focus that are often affected by it such as awareness and attention. Just a session can help you to noticeably reduce anxiety.

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RACE AND GENDER IN PHYSICAL EDUCATION AND SPORTS

Sanganagouda.S.Biradar

Principal, B.V.V.Sangha's

Basaveshwar College of Physical Education, Vidyagiri, Bagalkote

ABSTRACT

One should mention that race and gender play a primary role in physical education and sports. Perhaps these are some of the most significant characteristics without which it would be impossible to develop and promote sport and physical activity. These factors create the diversity of cultures and nations, and inclusiveness, giving access to the best talents and disclosing the individual's potential, abilities, and strengths.

Keywords: *Sport and Physical activity, Diversity, mental stress, abilities, strength, gender*

Introduction

The present investigation studied the influence of race and gender on sport and physical activity choices by regarding specific sport and physical activities as appropriate for participation or self-defining for race and gender groups. The study was designed to confirm the existence of self-schemata for sport and physical activities. A computer-generated instrument was employed to assess the existence and strength of self-schemata. Results of logistic regression analysis suggest that self-schemata for particular sport and physical activities indeed exist and certain schemata differ by race and/or gender. Understanding the dynamics of the development of self-schemata development and the influences of race and gender holds potential for a more comprehensive explanation of the disparity in sport and physical activity participation and performance.

Sport unites and connects people, regardless of personal, physical, or mental qualities. It is enough to look at how people of various skin tones, other origins, and regions work together in one team, glorifying each other, rejoicing, or grieving together (Coakley, 2017). Sport has imperceptibly changed the consciousness, and mentality of citizens, forcing them to think about themselves and the individuals around them (Coakley, 2017). In particular, sport is not just enjoyment and an escape from routine but also a way to unite citizens regardless of race, gender, nationality, and other elements.

Nevertheless, the inner part and the "underside" of sport are not what it seems at first glance. Hence, based on the experience of the famous hockey player, one must remark that hazing and discrimination based on nationality actively continue to flourish in sports (Aliu, 2020). Viewers cannot participate in the feelings and sensations shared by young athletes, particularly at the beginning of their careers. These athletes can be gifted, talented, different, and unlike each other; in some way, based on pluralism and diversity, a conflict may arise within a team. In addition, all races on Earth have their peculiarities of physiology, and this is noticeable both externally and in the results of sports competitions.

Often, not only race and age remain the subject of discussion, but also the identification of some individuals. Sports principles have turned out to be almost the main stronghold of "sexism," "ageism," and "racism." If earlier sport was divided exclusively into "male" and "female." Still, this concept remains in doubt at the moment due to rapidly changing trends and the high dynamics of social development. For instance, transgender people in sports are the basis for a clear understanding of human rights and opportunities.

In contrast, some people believe that promoting transgender people in sports destroys the aesthetics of women's competitions and undermines the foundations of civilization. Although, indeed, this is a fundamentally incorrect statement since some women also have elements inherent in men (Turban, 2021). The performances of such

“characters” in major matches were isolated and perceived as exotic, and they did not affect the distribution of medals. Nevertheless, as soon as former men and intersex people began to break into leading positions in women’s sports, the topic took a scandalous turn. In short, the boundaries between gender and age cannot be erased as if by magic, and some sports only continue to strengthen the sexual binary (Turconi, 2017). At least, it is impossible to ignore the fact that the indicators for running, jumping, or throwing will be different for men and women, despite the same allotted time for training.

Sports have been widely acknowledged for their positive impact on the health and well-being of participants. The potential harm caused to athletes’ health and well-being when their integrity is compromised through non-accidental violence or maltreatment, such as harassment and abuse is often overlooked. It is crucial to understand that all forms of harassment and abuse violate human rights and may even be considered criminal offenses.

Many sports organizations fail to adequately address the harms caused by harassment and abuse, often due to concerns about damage to their reputation or a lack of awareness, silence, and collusion. It is important to note that research on abuse and harassment outside of the sports context indicates that sport organizations cannot assume they are exempt from these issues, as the problems prevalent in society can also exist within sports. It is challenging to determine whether sports are more or less susceptible to such problems, and whether they offer any unique safeguards. However, it is evident that the risk of psychological, physical, and sexual violence increases as athletes progress in their talent development and performance pathway.

The cultural background of harassment and abuse originates from the presence of power imbalances tied to various social and personal factors, leading to discrimination.

It is the responsibility of the sports organisations to ensure that no sports persons who are involved in their sport are subject to any abuse, sexual misconduct, harassment or unlawful discrimination.



Types of Abuse in sports

✚ Psychological harassment and abuse

Psychological abuse, which is also known as emotional abuse, is a type of mistreatment that targets person’s mental and emotional well-being. There are strong evidence that psychological, sexual and physical abuse are highly interrelated.

Some examples of this abuse in sports are:

- ❖ Continuous criticism – A sportsperson may be subjected to constant or continuous criticism and negative feedback which abrades their self- confidence as well as their self-esteem. This type of criticism can be engaged by coaches, teammates or even spectators, which humiliate or ridicule the athlete.
- ❖ Threats and intimidations – Some threats like threats of physical harm, loss of playing time or some other consequences related to them if they do not comply with the demands of coaches or any other authority, which instils fear and anxiety in the minds of athletes.
- ❖ Psychological or emotional blackmail – This type of abuse involves using manipulation and psychological or emotional leverage which force sportspersons into certain actions or behaviours by using guilt, fear or shame to control those athletes.
- ❖ Conning or gas lighting – When the abilities, efforts or achievements of athletes are minimised or denied by manipulating the individual’s perception of reality to make

them question their own experience creates self-doubts and confusion in the mind of athletes which is known as conning or gaslighting.

✚ **Sexual harassment and abuse**

Sexual harassment and abuse have been the most recent form of interpersonal abuse that can occur in various contexts including sports. This type of abuse is by power which is fostered by an organisational culture which either disregards, denies or silently condones the issue. Across all sports and at various levels these forms of misconduct occur with higher prevalence rates observed in elite sports. According to different studies and measurement methods it ranges from 19% to 92% for sexual harassment and 2% to 49% for sexual abuse. Sexual abuse often involves the process called 'Grooming'.

Grooming

Before starting to abuse, the abuser builds trust and confidence with the athlete. "The grooming process in sports involves firstly targeting a potential victim where they observe which athlete is vulnerable and finding occasions to test her out for secrecy and reliability then they build trust and friendship like making her feel special or giving gifts and rewards then developing isolation and control, building loyalty and then lastly initiation of sexual abuse and securing secrecy."

Here are some examples of sexual harassment and abuse:

- Unwanted sexual advances – This includes inappropriate and unwanted sexual proposition, gestures or comments directed towards athletes through which hostile environment is created where these athletes feel uncomfortable or intimidated.
- Sexual assault – It refers to any non-consensual sexual conduct or activity. In sports it involves unwanted touching, groping, or forced sexual acts.
- Abuse of power dynamics – Some coaches, trainers or any other person in authority abuse their powers to coerce sports persons to engage in unwanted sexual activities. This is the severe form of sexual abuse due to exploitation of powers.
- Gender based harassment – Athletes also face harassment and discrimination based on their genders which includes derogatory remarks, slurs, that target individual's gender and sexual identity.



Physical abuse and forced physical exertion

It involves intentional acts of physical harm directed towards sports persons. It includes any form of physical assault like hitting, punching, kicking etc by coaches, trainers or any other person in position of authority. It may be inflicted both on and off the field. Numerous forms of violence in sports are implicitly accepted or normalized because of the 'win/lose' structure of sports and a culture that idolizes athletes. This is especially true of contact sports because of how physically demanding they are and how the athlete's body is treated as essential "equipment."

Now we will see these forms of abuses with the help of some examples:

Samaira is a 16 year old girl. She's a gifted 1000-meter runner who wants to join the Olympic team this year. She moves to the city that is close to the training facility with coach Shyam after being chosen for the qualifying squad.

She received appreciation from Shyam for her performances, and he promised to fulfill her



aspirations if she followed his instructions. Samira can tell that the coach likes her because he regularly compliments and encourages her. She is first pleased with how her coaching relationship is developing, but as time went on, Shyam began paying closer attention to her, something that her teammates also observed.

Samira is struggling academically, so one day Shyam offers to assist or teach her in her school work in his office after practice. After the tutoring session, Shyam provides conveyance and buys her food on the way home. After a few days, Shyam switches the location of the tutoring sessions from his workplace to his house.

Coach invites Samira to his hotel room for “special pre-competition talks” the evening before her 1000m qualification race. He puts his arm around her as they are seated together. He puts his arm on her thigh and she starts to feel awkward. He promised her that if she does him any favours, he will make sure she succeeds tomorrow.

As she leaves the place, Samira “walks by her teammates and the team manager. They turn around and leave while clearly upset and in tears.

Alexa, a young female athlete who dreams of pursuing a professional career in her sport. She joins a renowned team and begins training under a trainer Mark, who wields significant power and influence within the organization. Unfortunately, the trainer abuses his position of authority, subjecting the athlete to both sexual and psychological abuse.

He begins by making unwelcome sexual advances towards the athlete, making inappropriate comments about her appearance and making explicit remarks about her body during training sessions. Gradually, Mark escalates the abuse by engaging in non-consensual physical contact, touching her inappropriately under the guise of providing coaching instructions. This sexual abuse leaves Alexa feeling violated, confused, and fearful of reprisals if she were to speak up.

Alongside the sexual abuse, the trainer also engages in psychological abuse to maintain control over Alexa. He frequently belittle and demean her in front of the team, criticizing her skills, appearance, and performance. Mark uses derogatory language, insults her abilities, and creates a hostile environment. She is constantly subjected to harsh criticism, which erodes her self-confidence, self-esteem, and passion for the sport. The trainer also isolates her from the team, creating a sense of loneliness and alienation.



The gender issue has led to feminist stances which are now well documented. There appear to be two main approaches, 'equal opportunities' and 'antisexist'. The relationship between race and gender and the ensuing dilemmas and contradictions caused by accepting both equal opportunities and antisexist policies at the same time as accepting cultural norms of different ethnic/religious groups which are in conflict with those policies, are debated by Walkling and Brannigan, Troyna and Carrington and Haw. Brah and Minhas illustrate how race, gender and class inequalities are produced through the education system and society. Physical Education (PE) and sport is usually regarded as a sphere of activity where equality of opportunity and racial harmony exist, and the evidence is provided by the number of black children who do well in sport. The PE teachers in presenting an equal opportunities policy in leisure activities are hitting at what can be described as the sexist core of cultural tradition.

Conclusion

The impact of such experiences on athletes can be long term as well as very damaging and it also extends to affect families, friends or colleagues. It also has negative impact on the athlete physical, psychological and social health as well which also impacts their sport. It can also discourage talented athletes to participate in sports. When potential sportspersons witness a culture that condones or ignores harassment, they may opt out of pursuing a sporting career, leading to a loss of talent and diversity in the sports industry.

Abuse also creates a hostile environment that can impact the performance and focus of the athletes. Sexual abuse can also disrupt team dynamics and unity and creates tension and toxic environment within the team, affecting communication.

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PHASE OF CONSTITUTIONAL MOVEMENT IN INDIA'S FREEDOM MOVEMENT- ACHIEVEMENTS OF LATE NATIONALISTS

Dr. Hemalatha HR

*Associate Professor, Department of Political Science,
GFGC, Nanjangud, Email: krishankanaka@gmail.com.*

Three phases are generally identified in the independence movement led by the Indian National Congress. They are

1. 1885 to 1905 – Period of Progressive Nationalists
2. 1905 to 1918 - Period of Radical Nationalists
3. 1919 to 1947 - Gandhi Era

Classified in this way based on the nature of the fight

The establishment of the Indian National Congress was an expression of the growing nationalism among Indians. The National Congress was a national level organization as its name suggests. It represented the people of all the provinces of India, of all languages, of all religions. Everyone was free to become its member. Its first president, W.C. Banerjee was a Christian from Bengal. Dadabhai Naoroji, who presided over the second conference held in Calcutta in 1886, was a Parsi. Badruddin Tyabji, a Bombay Muslim leader, presided over the third session held in Madras in 1887. The fourth session held in Allahabad in 1888 was chaired by George Yule of England. The 5th session held in Bombay in 1889 was chaired by William Wedderburn. Feroze Shah Mehta, the president of the 6th session held in Calcutta in 1890, was also a Parsi. In 1891, for the first time a Hindu - P.) Anandcharlu was elected as the President of the 7th session held at Nagpur. Thus the Congress was born as a national party and till the end it remained a national party representing people of all religions. It cannot be said that there were no errors in the organization. Because it mostly consisted of the educated middle class and the uneducated masses had stayed away from the Congress for a long time. However, there is no doubt that Congress is a secular national party.

The nature of the struggle of the laggards

The late nationalists described their struggle as a 'confluence of liberalism and austerity'. The first 20 years have been described as a 'period of constitutional struggle', a 'period of moderate politics'. Further, the radicals called this era as 'the era of political begging', 'the era of tea party politics'. The late nationalists had great confidence in the British sense of justice. He considered British rule as a 'boon'. The Mandagamis, who were blind admirers of British history and culture, wanted the continuation of British rule in the interest of India's future. He thought that Britain would help Indians gain the ability to rule themselves. In the 1886 Calcutta session's presidential address, Naoroji spoke at length about the benefits of British rule. Anand Mohan Bose, speaking from the presidency of the Madras session of the Congress in 1898, said, "The educated people of India are the friends, not the enemies, of Britain." Speaking from the chair of the first Congress session, W.C. Banerjee said "Congress is not a party of conspirators and disobedient". "If the British leave India it will be our day of doom, doom," Naoroji said.

The backward nationalists felt that the continuation of British rule under the present conditions was necessary in the interest of India. He had a reasonable apprehension that anarchy would recur in the country if the British rule ended. In his view, British rule was a symbol of peace and stability and he felt that British rule could not be replaced for a long time. Speaking about this, Gokhale said, "Whatever may be the faults of bureaucracy and sometimes the behaviour of some English officials may be intolerable, yet they alone

can maintain the present order and without order there can be no real progress of our people". The laggards, who sincerely believed that India's progress could only be under British supervision, took every opportunity to express their loyalty to British rule. Speaking from the presidency of the 1887 Madras session of the Congress, Badruddin Tabbi said, "Among the millions of British subjects in India, it is impossible to find more obedient and staunch allies than these educated natives."

Struggle for administrative reforms

The latecomers opposed the 'un-British rule' of the Indian bureaucracy. He demanded implementation of administrative reforms. In the Congress sessions held every year, the problems of the Indians were discussed and the important demands were listed and submitted to the government in the form of a petition. Petitions were prepared in the mildest language, submitted to the Government, and prayed for sympathetic scrutiny. The Congress presented the following demands regarding administrative reforms.

Indian freedom movement

1. Pushed for Indianization of administrative system. A large number of Indians were forced to be appointed to high administrative posts.
2. ICS examinations were forced to be held simultaneously in India and Britain
3. It was demanded to raise the maximum age limit for ICS examination
4. It was demanded to reduce the salaries of the top British officials and increase the salaries of the lower-level Indian employees.
5. Forced to create promotion opportunities for Indian employees
6. Demanded to reduce administrative expenditure. The 'India Council' in London was forced to be cancelled.

It was demanded to give priority to primary education, to give more facilities to technical and higher education, to establish agricultural banks to protect the farmers from devas, to expand irrigation facilities. The laggards demanded action to protect workers of Indian origin in South Africa, Malaya, Mauritius, the West Indies and British Guiana from atrocities. Congress supported Gandhiji's struggle on behalf of Indians in South Africa.

The British government set up the Welby Commission in 1895 to look into rising administrative costs. Dadabhai Naoroji, Vedderburn was a member of it. A report it submitted in 1900 revealed several illegal payments. Similarly, a resolution was passed in the House of Commons to conduct the ICS examination simultaneously in India and England, but it was not implemented.

Struggle for political rights

Progressive nationalists preferred to inculcate political consciousness among Indians and give them political education. Congress resolutions and demands were instrumental in achieving this goal. The objective of the laggards was to give the Indians equal political rights to the British and to get them more seats in the legislatures. The Mandagamis were very cautious in this matter, as they themselves hailed the British rule as a 'boon'. To expand the central and provincial legislatures, to give more seats to Indians in them, to increase the percentage of councils. 50% members were forced to be elected through elections. It was also demanded that the members of the Central and Provincial Councils be empowered to discuss administrative matters including the budget. It demanded the establishment of councils in the North West Provinces and the Punjab, the appointment of two Indian members to the Viceroy's Executive Committee and one Indian member each to the Governor's Executive Committees of Madras and Bombay Provinces. In district administration, separation of executive and *judicial powers was demanded. It was demanded that the members of the Council should be given the opportunity to lodge a complaint against the Government of India to the Standing Committee of the House of Commons. Like the British colonies of Australia and Canada, India was also forced to grant self-government. Gokhale presented this demand for the first time in the Banaras Congress session of 1905. In the Calcutta session of 1906, Naoroji, who was the president, presented

the demand for Swaraj for the first time. A committee of the Indian National Congress was formed in London in 1889 to pressurize the British government to fulfil these demands and create public opinion. It started the magazine 'India'. A committee formed in London included Sir William Wedderburn, W.S. Keyes, W.S.B. McClaren, J.E. Ellis, George Yule, Dadabhai Naoroji were members. Further WC. Banerjee and A. O. Hume joined this committee. Furthermore, a session of the Indian National Congress was intended to be held in London in 1892 to explain the problems of Indians to the British people, but it was postponed in the wake of the British general elections. Again, no efforts were made in that regard. Congress's struggle for political concessions did not bear much fruit.

Congress leaders fought only for the political rights of educated Indians. In 1895, Surendranath Banerjee, speaking from the President's seat at the Congress session in Pune, made it clear that "the representative bodies of the Congress are asking for educated Indians and not for the common people of India". Congress opposed Lord Curzon's 'Calcutta Corporation Act' of 1899 and 'Universities Act' of 1904.

Struggle for civil rights

Conscious Indians from the beginning fought for civil rights mainly freedom of speech, freedom of press, freedom of expression and freedom of association. Even before the establishment of the Congress, there was a struggle against the Vernacular Press Act of 1878. Attempts to restrict freedom of the press were strongly opposed by backward nationalists. Most of the late nationalists had their own newspapers. Important newspapers of this period were 'The Hindu' edited by G.Subramanya Iyer and 'Swadeshmitan Shilakara Kesari' and 'Maratha', Surendranath Bengali', Sirsi Kumar Ghosh and Motorland's Amrita Badar Patrika', G.K. Gokhale's 'Sudharak' N.N. Sen's 'Indian Mirror', Dadabhana Swaraji's 'Poys' of India', JP Verma's 'Hindustani' and 'Advocate', Panchana Tribune, Bombay's 'Indu Prakash', 'Dhyaan Prakash', Bengal's 'Banganivasi' and 'Sudharana'. etc. Newspapers then had no profit motive but social service. As English education spread, the number of people reading newspapers also increased as the number of educated people increased.

Journalists have never held back in opposing the government's actions to take away the freedom of the press. 188302 S.N Bra for practicing religion of press. Had to serve two months in jail. Tilak's papers were famous for their fearless writings. Tilak was imprisoned for 4 months in 1882, 18 months in 1897 and 6 years in 1908 for his writings. The whole country protested the conviction of Tilak. Because of that Tilak became popular all over the country. The Nathu brothers from Poona were exiled without trial. The late nationalists demanded the repeal of the Arms Act of 1878. Similarly, he demanded the repeal of the 'Sedition Act' of 1898 and the 'Criminal Procedure Code Amendment Act', the 'Official Secrets Act' of 1904.

Struggle against British economic exploitation

The greatest achievement of the late nationalists was to expose the economic exploitation of the British colonial rule, Dadabhai Naoroji, R.C. Dutta, M.G. Ranade, G.K. Gokhale, G. Subramanya Iyer and others subjected British economic policy to analysis. Dadabhai Naoroji, in his important work 'Poverty and Un British Rule in India' published in 1901, explained with statistics how the British were looting India's wealth. He himself popularized the theory of 'wealth leakage'. He argued that the growing poverty in India was directly related to the British policy of economic exploitation. From the 1870s, he started criticizing the British government's economic extortion policy based on government documents. "Indians are serfs, worse than American slaves," he said. "In India there is a proverb 'Don't hit on the belly, hit on the back'. Under domestic tyranny people were often slapped on the back but used what they produced. Under British rule the man is at peace. He has no violence. But his livelihood is peacefully disappearing out of sight. He fasts in peace., is perishing in peace. Only law and order is on his side," he said.

The progressive nationalists put forward the following economic demands.

1. Free trade policy should be abandoned and local industries should be protected.

2. Government should help infant Indian industries
3. Land revenue should be substantially reduced.
4. Leakage of wealth should be stopped immediately
5. Exploitation of plantation workers should be curbed.
6. Irrigation duty should be reduced
7. Salt should be reduced
8. Forest Act should be changed to be people friendly.
9. Excise duty on cotton products should be abolished.
10. Tax should be increased on intoxicating drinks other than those used for medical purposes.
11. Military expenditure should be reduced.

Thus the backward nationalists criticized the policy of economic exploitation of the British government and presented to the people with statistics how it was responsible for the increasing poverty of India. Although he supported the Swadeshi movement, he did not support the boycott movement, fearing that it might lead to conflict with the government.

Local issues were not allowed to be discussed on the Congress platform. In 1897, when a severe famine and plague struck Maharashtra, Governor Sandhurst's government failed to protect the people. Thus, in the first phase, the actions of the Congress did not satisfy anyone. In real sense it did not grow as a party representing the masses, the entire country. However, the Congress leaders claimed that they were representing the people of the nation. Feroze Shah Mahata once said "Congress is not really the voice of the masses, but it is the duty of the leaders to analyse the problems of their countrymen and give suggestions for their solution". Manmohan Ghosh, another late leader, said, "History shows that in all times and in all countries the thinking classes have led the unconcerned. In our present social conditions, we have to worry not only about ourselves but also for those who still remain ignorant."

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REASONS TO ADD STRENGTH TRAINING TO YOUR WORKOUT ROUTINE

Dr. Venkata Chalapathi G

Government First Grade College,
Kanakapura, Ramanagara District, Karnataka

ABSTRACT

When properly performed, strength training can provide significant functional benefits and improvement in overall health and well-being, including increased bone, muscle, tendon and ligament strength and toughness, improved joint function, reduced potential for injury, increased bone density, increased metabolism, increased fitness, improved cardiac function, and improved lipoprotein lipid profiles, including elevated HDL ("good") cholesterol. If you knew that a certain type of exercise could benefit your heart, improve your balance, strengthen your bones, and help you lose weight as it made you look and feel better, wouldn't you want to get started? Well, studies show that strength training can do all of that and more. Strength training is not just about bodybuilders lifting weights in a gym. It can benefit people of all ages and may be particularly important for people with health issues such as arthritis or a heart condition.

Keyword : Reasons to Add Strength Training to Your Workout Routine

Introduction

Training commonly uses the technique of progressively increasing the force output of the muscle through incremental weight increases and uses a variety of exercises and types of equipment to target specific muscle groups. Strength training is primarily an anaerobic activity, although some proponents have adapted it to provide the benefits of aerobic exercise through circuit training. Strength training is typically associated with the production of lactate, which is a limiting factor of exercise performance. Regular endurance exercise leads to adaptations in skeletal muscle which can prevent lactate levels from rising during strength training. This is mediated via activation of PGC-1 α which alter the LDH (lactate dehydrogenase) enzyme complex composition and decreases the activity of the lactate generating enzyme LDHA, while increasing the activity of the lactate metabolizing enzyme LDHB. Sports where strength training is central are bodybuilding, weightlifting, power lifting, strongman, Highland games, shotput, discus throw, and javelin throw. Many other sports use strength training as part of their training regimen, notably tennis, American football, wrestling, track and field, rowing, lacrosse, basketball, pole dancing, hockey, professional wrestling, rugby union, rugby league and soccer. Strength training for other sports and physical activities is becoming increasingly.

Strength Training: The Benefits

Yes, strength training will add definition to your muscles and give men and women alike more fit and toned bodies. But working out with weights does so much more:

1. Strength training helps keep the weight off for good.

Not only does strength training aid in shedding pounds, it helps maintain weight loss, too. A recent study revealed that women who followed a weight-training routine 3 times a week increased the amount of calories burned in normal daily activity (in addition to those burned during exercise), helping them to maintain their current weight.

Access a State-by-State Prescription Drug Monitoring Program. Find Out How!

2. Strength training protects bone health and muscle mass.

After puberty, whether you are a man or a woman, you begin to lose about 1 percent of your bone and muscle strength every year. "One of the best ways to stop, prevent, and even reverse bone and muscle loss is to add strength training to your workouts,"

advises Troy Tuttle, MS, an exercise physiologist at the University of Texas Medical School in Houston."

3. Strength training makes you stronger and fitter.

Strength training is also called resistance training because it involves strengthening and toning your muscles by contracting them against a resisting force. There are two types of resistance training:

Isometric resistance

involves contracting your muscles against a non-moving object, such as against the floor in a push-up.

Isotonic strength training involves contracting your muscles through a range of motion as in weight lifting.

Both make you stronger and can get you into better shape. Remember that with strength training your muscles need time to recover, so it should only be done on alternate days. Always take some time to warm up and cool down after strength training.

4. Strength training helps you develop better body mechanics.

Strength training has benefits that go well beyond the appearance of nicely toned muscles. Your balance and coordination will improve, as will your posture. More importantly, if you have poor flexibility and balance, strength training can reduce your risk of falling by as much as 40 percent, a crucial benefit, especially as you get older.

5. Strength training plays a role in disease prevention.

Studies have documented the many wellness benefits of strength training. If you have arthritis, strength training can be as effective as medication in decreasing arthritis pain. Strength training can help post-menopausal women increase their bone density and reduce the risk of bone fractures. And for the 14 million Americans with type 2 diabetes, strength training along with other healthy lifestyle changes can help improve glucose control.

6. Strength training boosts energy levels and improves your mood.

Strength training will elevate your level of endorphins (natural opiates produced by the brain), which will make you feel great. As if that isn't enough to convince you, strength training has also been shown to be a great antidepressant, to help you sleep better, and to improve your overall quality of life.

7. Strength training translates to more calories burned.

You burn calories during strength training, and your body continues to burn calories after strength training, a process called "physiologic homework." More calories are used to make and maintain muscle than fat, and in fact strength training can boost your metabolism by 15 percent — that can really jumpstart a weight loss plan.

8. Strength Training: Getting Started

"Please don't limit yourself to thinking that lifting weights, expensive machines, or gym membership is the only way to do strength training," says Tuttle. "Pushups, jump squats, lunges, and mountain climbing are all examples of exercises that provide strength training." If you have any health issues, ask your doctor what type of strength training is best to meet your needs and abilities. You can also work with a fitness expert to design a strength-training program that will be safe and effective for you. Who doesn't want to look better, feel better, and live a longer, healthier life? So what are you waiting for? Get started now with a complete workout program that includes strength training.

Sports where strength training is central are bodybuilding, weightlifting, power lifting, strongman, Highland games, shotput, discus throw, and javelin throw. Many other sports use strength training as part of their training regimen, notably tennis, American football, wrestling, track and field, rowing, lacrosse, basketball, pole dancing, hockey, professional wrestling, rugby union, rugby league and soccer. Strength training for other sports and physical activities is becoming increasingly.

CONCLUSION

Challenge because today physical activity is less part of our daily lives. There are fewer jobs that require physical exertion. We have become a mechanically mobile society relying on machines rather than muscles to get around. In addition, we have become a nation of observers with more people (including children) spending their leisure time pursuing just that -leisure. Today modern society is more important and healthful is physical training or fitness workout today society.

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A STUDY ON ISSUES & CHALLENGE FACED BY WOMEN'S IN SPORTS & GAMES

Dr. Gayathamma.G.P

College Physical Education

Govt First Grade College, Saligrama, Mysore (D)

ABSTRACT

Women's participation in sports in India has been traditionally low due to cultural and societal attitudes. However, in recent years there have been efforts to promote and encourage women's participation in sports, such as the implementation of policies to increase funding and resources for female athletes, and the creation of programs to encourage girls to participate in sports from a young age. Despite these efforts, there is still a long way to go in terms of achieving gender parity in sports participation and representation in India. Sports in India is in the process of development. To accelerate this rate of development, a holistic approach should be adopted. Efforts are required in developing infrastructure, identifying sports talents, organizing regular sports events, and generating awareness at the grass-root level. The sports world is a completely different place for women than it is for men. This contrast applies to sports at all levels from women in power at the top of the sports industry and pro athletes, to amateurs, college-level players, and young girls.

Keywords: Power, Pay, Motivation, inequality, physical differences, Sports event

Introduction

Men and women sports are different because men and women are different. But physical differences don't account for the massive scope of gender inequality in athletics that persists even when women work just as hard or achieve more than the men in their field. When we delve deeper and examine how gender inequality in sports really functions, its systemic nature appears. The underrepresentation of women in sports leadership, the gender gaps in athletes' pay, and the differences in funding, opportunities, and support for female athletes accumulate into a troubling domino effect. We should all be concerned that, compared to boys, girls are almost twice as likely to drop out of sports by age 14. For many girls, participating in sports is the best path toward health improvements, interpersonal skills, greater social equality, and confidence. For current and upcoming generations of female athletes, let's get to the bottom of why gender inequality still impacts sports.



Causes of gender inequality in sports: why & how

- ✚ **Power :** There isn't a proportionate number of women with access to power in the sports industry.
 - The most important decisions in any industry happen from the top down. A sports world that treats women and girls equally is therefore synonymous with a sports world that represents women equally in power and influence.
 - Women make up only 18% of qualified coaches, 9% of senior coaches, and less than 25% of the governing boards of almost half of publicly-funded national sports governing bodies.
 - As of 2016, less than 30% of Olympic governing bodies, 16.6% of National Olympic Committees, and 18% of international Sports Federations were women.

✚ **Pay** : Many athletes receive income from the organization they play for, but corporate sponsorships are another major source of income for successful athletes. When considering both forms of compensation, women athletes get short-changed. The gender pay gap is a problem because young women and girls deserve the chance to aspire to sports as a career to the same degree that boys and young men do. Of course, it's harder to pursue dreams of going pro in a sport when your hard work is unlikely to pay off in the same way it would if you were male.

- Depending on the sport, the average professional woman athlete is paid a small fraction of her male counterpart. Tennis is a relatively promising example, where the average female athlete makes 84% of the average male athlete's pay.
- Women's sports get an estimated 0.4% of total corporate sponsorships.
- The WNBA recently resolved a situation where they were paying players 23% of their revenue, whereas NBA players earned half of their league's revenue.



✚ **Marketing and promotion**

In the face of criticism toward the gender pay gap in sports, some athletic organizations have pointed to women athletes bringing in less revenue, though they still pay women lower percentages of said revenue. This argument only reveals the underlying gender gap in the way organizations market and promote women's sports.

The discrepancy in marketing and promotion translates to smaller and less enthusiastic followings, fewer sponsorships, fewer profits, and ultimately lower pay.

- Washington Mystics' EleneDelle Donne observed, "We absolutely do not get promoted as our male counterparts do. When you put millions of dollars into marketing athletes and allowing fans to get to know a player, they develop a connection with someone."
- Official WNBA Jerseys are extremely hard to come by — even fans of WNBA Finals MVP Kahleah Copper couldn't find her jersey online to purchase.
- Marketing for women in sports is sometimes over-sexualized, which understandably alienates female fans.

✚ **Media coverage**

Media coverage of women's sports is often minimal, even when women athletes' accomplishments outshine male athletes. Even worse, media portrayals of female athletes often focus on their outer appearance or sexualize them.

Those mentalities that originate from the sexist portrayal of women can harm young athletes' performance and personal fulfillment in sports and make them more likely to drop out. What young girls in sports need is access to inspiring role models to celebrate for their excellence.



Acknowledging and celebrating women's sports is key to driving widespread engagement, fandom, and participation.

- Women comprise about 40% of athletes, but women's sports make up 4% of sports media coverage.
- Though viewers can identify when broadcasting underrepresents female athletes, news staff may be unaware of the imbalance in their coverage of women.
- Female athletes are considerably more likely than males to be sexualized in the media.
- 2021 was the first year the women's NCAA tournament was on network TV. The fact that audiences have been growing steadily for women's sports means it's past time to give women's athletics the attention they deserve.

✚ **Funding** : In college sports, women's athletic programs are often underfunded or underserved compared to men's sports.

Gender gaps in college funding for women's sports can impact coaching, facilities, opportunities, promotional investment, and fan enthusiasm.

- Collegiate institutions spend 33% of scholarship budgets, 24% of athletic operating budgets, and 16% of recruitment budgets on women.
- College women's team coaches earn 63% of what men's college teams' coaches earn.



✚ **Opportunities** : One of the most basic imbalances is the gender inequality in sports opportunities.

Arguably even more impactful on women's sports than adequate media exposure for high-level female athletes, pay incentives, and college funding, is girls and women simply getting the chance to play. Having opportunities to play sports in and of itself cultivates the positive impact of sports on girls' lives and the lifelong passion that follows.

- 1.13 million fewer high school athletics opportunities exist for girls compared to boys.
- It took until 2020 to have the "first gender-equal [Olympic] games," with 49% female participants.

✚ **Gender stereotyping**

Society overwhelmingly reinforces stereotypes to shape girls' and boys' feelings about sports as they grow up.

Girls are often subject to messaging that fails to encourage or altogether discourages equal participation in sports.

- Girls' environments underemphasize motor skills and physical activity during formative years.
- Gender stereotyping works its way into the childhood toys that girls are expected to play with, the specific sports they're pushed to join, and the media portrayals of women in sports to which girls are exposed.



The role of sports in gender issues

Participating in sports makes women and girls healthier physically and mentally, and lowers serious disease risks. Young women in sports also experience improved reproductive health, engage in less drug use, and have lower rates of gender-specific health problems. The agency, empowerment, social integration, and personal development women and girls gain from sports are equally impactful.

The solution: fixing gender inequality in sports

Though plenty of us are actively pushing for change in the sports arena, balancing the scales in power, investment, representation, and opportunity won't happen overnight.

These changes won't happen by themselves, either. Social media has become a powerful tool to help women in sports push for change and gradually democratize the sports industry. Through social media, women in sports have a direct line to the public to take control of their marketing, promotion, sponsorships, and public image while speaking their minds, raising awareness, and becoming role models. It has also contributed to the increased media coverage of women's sports that we are starting to see by granting visibility to women's sports fans who take to the platform to expose inequities and celebrate female athletics. Additionally, there have been hundreds of gender inequality in sports articles written in the past few years that aim to help raise awareness

Encouragingly, all of us can join the charge and find ways to elevate female athletes of all ages in our own spheres and beyond.

Scenario of Such Allegations

Recently, some sportspersons made allegations of sexual harassment against **WFI (Wrestling Federation of India)** president BrijBhushanSharan Singh. Sports Ministry demands explanation from WFI within 72 hours, if WFI fails to furnish the reply, the Ministry will proceed to initiate action against the Federation in terms of the provisions of the National Sports Development Code, 2011.

According to RTI (Right to Information) Data, between 2010 to 2020, there were 45 complaints of sexual harassment to the SAI (Sports Authority of India), of which 29 were against coaches. In several of these reported cases, the accused were let off leniently, with punishments that consisted of transfers to a meager cut in pay or pension. Some of the cases have not seen the end of the tunnel with many dragging on for years, with no resolutions in sight.

Abuse in sports was a poll issue in Germany in 2021. The Federal Parliament's Sports Committee hosted a public hearing on emotional, physical and sexualised violence in sports in May 2021. It is about time India discussed the issue and not wait for athletes to stage protests at JantarMantar to be heard. Living in the 21st century, where we have devised the technology to monitor robots to do our bidding, there's still one aspect where we fall grossly short when it comes to progress — gender equality.



Issues Faced by Sportswomen

➤ Funding and Budget:

Sportswomen face a lack of equal funding compared to men's athletics, making it difficult for them to compete and run consistent programs.

➤ Buoyant Sexism:

Women are made to face the barrels of buoyant sexism on a daily basis, be it at work or even at home. They are monitored and judged by the way they dress, by the way they speak.

➤ Gender Disparity:

Despite women's efforts to advocate for their social rights, they still do not receive the same level of respect or recognition on the professional front, particularly in the sports industry, as their male counterparts.

➤ Lack of Access and Costlier:

Lack of physical education in schools and limited opportunities to play sports in both high school and college mean girls have to look elsewhere for sports –which may not exist or may cost more money. Often there is an additional lack of access to adequate playing facilities near their homes that makes it more difficult for girls to engage in sports.

➤ Safety and Transportation Issues:

Sports require a place to participate – and for many girls, especially in dense urban environments, that means traveling to facilities through unsafe neighborhoods or lacking any means to get to a good facility miles away. And if there isn't a safe option like carpooling with other families, the only option for a girl and her family may be to stay home. For example, Manipur is a sporting powerhouse, but 48% of female athletes travel over 10 km to reach the practice facility.

➤ Social Attitudes and Disfigurement:

Despite recent progress, discrimination based on the real or perceived sexual orientation and gender identity of female athletes persists. Girls in sports may experience bullying, social isolation, negative performance evaluations, or the loss of their starting position. During socially fragile adolescence, the fear of being tagged “gay” is strong enough to push many girls out of the game.

➤ Decreased Quality Training:

The facilities are not as good as the boys' venues and the playing times may not be optimal. The availability of quality, trained coaches may be lacking in their community or these coaches may be more focused on the boys' programs that have more money for training. Equipment, and even uniforms aren't funded for many girls' programs at the same levels as boys so their ability to grow and enjoy the sport is diminished. In short, sports just aren't “fun” any more.



➤ Lack of Positive Role Models:

Today's girls are bombarded with images of external beauty, not those of confident, strong female athletic role models. Peer pressure can be hard for girls at any age; when that pressure isn't offset with strong encouragement to participate in sports and healthy physical activity, the results may lead girls to drop out altogether.

➤ Limited Media Coverage:

Women's sports are often underrepresented in the media, which can make it harder for female athletes to gain recognition and sponsorship opportunities.

➤ Pregnancy and Maternity:

Female athletes often face challenges balancing motherhood and their sports careers. This can affect the training and competing opportunities for female athletes.

Important for More Women Participation in Sports

➤ Physical and Mental Health:

Sports can have a positive impact on physical and mental health for both men and women. Girls active in sports during adolescence and young adulthood are 20% less likely to get breast cancer later in life.

➤ Gender Parity:

By providing equal opportunities and resources for women in sports, we can help to break down barriers and stereotypes that limit women's potential and participation in other areas of life. Sport in its most basic form encourages balanced participation and has the capacity to promote gender equality (SDG Goal 5: Achieve gender equality and empower all women and girls)

➤ Economic Empowerment:

Women who participate in sports often have more opportunities for education and employment, which can lead to greater economic empowerment.

➤ Rectify Societal Connotations:

Women's participation in sports can also help to change societal attitudes towards women and their capabilities.

By seeing women excel in sports, it can inspire more women to pursue their own goals and aspirations, and challenge stereotypes about what women are capable of achieving.

➤ Representation:

Women's participation in sports can help to provide better representation for women in leadership roles, including coaching and administration. It can also serve as an inspiration for young girls to pursue sports as a career.

➤ Community Building:

Sports can bring people together and promote greater understanding and respect between different groups within society. By promoting greater participation in sports among women, we can help to build stronger and more inclusive communities.



Safeguard Measures for Sexual Harassment

- ❖ The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.
- ❖ Protection of Women from Sexual Harassment (POSH) Act, 2013.
- ❖ Sexual Harassment electronic Box (SHe-Box).
- ❖ National Commission for Women (NCW).
- ❖ The Protection of Children from Sexual Offences (POCSO), 2012

Conclusion

Women's participation in sports in India has been traditionally low due to cultural and societal attitudes. However, in recent years there have been efforts to promote and encourage women's participation in sports, such as the implementation of policies to increase funding and resources for female athletes, and the creation of programs to encourage girls to participate in sports from a young age. Despite these efforts, there is still a long way to go in terms of achieving gender parity in sports participation and representation in India. Sports in India is in the process of development. To accelerate this rate of development, a holistic approach should be adopted. Efforts are required in developing infrastructure, identifying sports talents, organising regular sports events, and generating awareness at the grass-root level.

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A STUDY ON DIFFERENT TYPES OF MEDIA CONTENT INFLUENCE SOCIETY'S ATTITUDES AND BEHAVIORS

Dr. Hanumanthaiah. B.H

Associate Professor, Dept of Sociology
Govt First Grade College, Nagamangala, Mandy(D)

Abstract

Media has the power to influence individual beliefs, attitudes, and behaviors. Thus, social norms that influence and encourage gender violence have been targeted by policy interventions using mass media communication. Prior research suggests that media influences through two effects: the individual or direct effect (private) or the social or indirect effect (public). In the individual effect, media information about new norms may persuade individuals to accept them. In the social effect, the information creates common knowledge of a norm and enhances social coordination as individuals more readily accept the information if they believe others have also accepted it. This study examined whether media's social mechanism has a stronger impact than its individual mechanism on changing violent attitudes against women.

Keywords: Attitude, Behavior, knowledge, Communication. Individual behaviour

Introduction

This study conducted a natural and randomized experiment in the rural indigenous community of San Bartolome Quialana in Oaxaca, Mexico using a multi-part soap opera radio program telling a story of a relationship that slowly becomes violent. The soap opera was broadcast via a community loudspeaker and only reached a portion of the community due to topographical conditions (creating the natural experiment component). Households within the loudspeaker's reach were either randomly invited to listen to the soap opera at a community meeting or were able to hear the public broadcast in their own homes. This design tested whether public transmission of the soap opera alone was sufficient to influence norms, and whether creating certainty about common knowledge from face-to-face interactions with community members enhanced the social effects. Individuals outside the loudspeaker's reach were randomly and privately invited to listen to the soap opera using an audio CD to test the individual mechanism. A post-intervention survey measured norms, attitudes, and behavior regarding violence against women.

Media is a term that refers to the means of communication that reach or influence people widely. Media can be classified into different types based on various criteria, such as the purpose, audience, format, content, ownership, and technology of the media. In this blog, we will explore the meaning and definitions of media, the evolution of media, the nature and features of media, how to do effective corporate communication, the major types of media and its importance, and how to make a career in media.

Meaning and Definitions of Media

Media is derived from the Latin word "medius", which means "middle" or "intermediate". Media can be defined as the channels or tools that are used to store, transmit, or deliver information or data. Media can also be defined as the institutions or



organizations that produce and distribute information or entertainment to the public. Some examples of media are newspapers, magazines, books, radio, television, cinema, internet, social media, mobile phones, etc.

Media can be used for various purposes, such as education, entertainment, information, persuasion, advertising, marketing, public relations, etc.

Evolution of Media

Media has evolved over time with the development of human civilization and technology. The earliest forms of media were oral and written communication, such as storytelling, poetry, letters, etc. These forms of media were limited by time, space, and audience. The invention of printing press in the 15th century enabled the mass production and distribution of printed media, such as books, newspapers, pamphlets, etc. These forms of media expanded the reach and influence of media and facilitated the spread of knowledge, culture, and ideas.



The 19th and 20th centuries witnessed the emergence of electronic media, such as telegraph, telephone, radio, television, cinema, etc. These forms of media enabled the transmission and reception of audio and visual signals over long distances and in real time. These forms of media enhanced the speed, diversity, and interactivity of media and created a global media culture.

The 21st century has seen the rise of digital media, such as internet, social media, mobile phones, etc. These forms of media enable the creation, storage, access, and sharing of digital information and content in various formats, such as text, images, audio, video, etc. These forms of media increase the connectivity, personalization, and participation of media and empower the users as producers and consumers of media.

Nature and Features of Media

Media can be characterized by the following nature and features:

- Media is dynamic and constantly changing with the advancement of technology and society.
- Media is diverse and offers a variety of choices and options for the users and audiences.
- Media is interactive and allows the users and audiences to communicate and exchange feedback with the media and each other.
- Media is influential and affects the opinions, attitudes, behaviors, and values of the users and audiences.
- Media is powerful and can shape the public agenda, set the norms and standards, and create the reality and perception of the world.
- Media is ubiquitous and pervasive and can reach and impact people anywhere and anytime.



Types of Media Ownership

Media ownership refers to the control and ownership of media outlets, such as newspapers, magazines, radio, television, internet, etc. Different types of mass media ownership can affect the content, quality, and diversity of media and its impact on the society and the world. Media ownership can be classified into different types based on the number and nature of the owners of media.

- **Public Media:** Public media refers to the media that are owned and operated by the government or public authorities. Public media are funded by the public through taxes, fees, or donations. Public media are supposed to serve the public interest and provide information, education, and entertainment to the citizens. Some examples of public media are BBC, PBS, NPR, etc. Public media can be influenced by the political and ideological agendas of the government and may lack independence and diversity.
- **Private Media:** Private media refers to the media that are owned and operated by private individuals or corporations. Private media are funded by the owners or by advertising, subscription, or sales. Private media are supposed to serve the market and provide information, education, and entertainment to the consumers. Some examples of private media are CNN, Fox News, Disney, etc. Private media can be influenced by the economic and commercial interests of the owners and may lack objectivity and quality.
- **Community Media:** Community media refers to the media that are owned and operated by the members of a specific community, such as ethnic, religious, cultural, or geographic groups. Community media are funded by the community or by grants, donations, or sponsorship. Community media are supposed to serve the community and provide information, education, and entertainment to the members. Some examples of community media are ethnic newspapers, radio stations, websites, etc.



Community media can be influenced by the social and cultural values of the community and may lack professionalism and reach. These are the different types of media ownership that exist in the world. There are many types of media that use different formats and technologies to communicate with the audiences. The types of media ownership can affect the types of media and their content and quality. The types of media ownership can also affect the types of mass media communication and the extent and importance of media in the society and the world.

Different Types of Media and Its Importance

What are the types of media? Media can be broadly categorized into three major types based on the format and technology of the media. These are:

- **Print Media:** Print media refers to the media that use paper or other materials as the medium for printing and displaying information or content. Some examples of print media are newspapers, magazines, books, flyers, brochures, etc. Print media is one of the oldest and most traditional forms of media and has the advantages of durability, credibility, and accessibility. Print media is important for providing information, education, and entertainment to the readers and for influencing their opinions and behaviors.
- **Electronic Media:** Electronic media refers to the media that use electronic devices and signals as the medium for transmitting and receiving information or content. Some examples of electronic media are radio, television, cinema, etc. Electronic media is one of the most popular and widespread forms of media and has the advantages of speed, diversity, and interactivity. Electronic media is important for providing information, education, and entertainment to the listeners and viewers and for creating a global media culture.
- **Digital Media:** Digital media refers to the media that use digital technology and networks as the medium for creating, storing, accessing, and sharing information or

content. Some examples of digital media are internet, social media, mobile phones, etc. Digital media is one of the most recent and advanced forms of media and has the advantages of connectivity, personalization, and participation. Digital media is important for providing information, education, and entertainment to the users and for empowering them as producers and consumers of media.

How to Make a Career in Media

Media is a vast and diverse field that offers a range of career opportunities and prospects for those who are interested and skilled in media. Some of the common career paths in media are:

- **Journalism:** Journalism is the profession of reporting, writing, editing, and presenting news and information to the public through various media outlets, such as newspapers, magazines, radio, television, internet, etc. Journalists can specialize in different types of journalism, such as investigative, feature, sports, business, etc. Journalists need to have good communication, research, and analytical skills and a sense of curiosity, ethics, and responsibility.
- **Advertising:** Advertising is the profession of creating, planning, and executing promotional campaigns and strategies for products, services, or ideas through various media channels, such as print, electronic, digital, etc. Advertisers can work in different roles, such as copywriters, art directors, account executives, media planners, etc. Advertisers need to have good creativity, persuasion, and marketing skills and a knowledge of consumer behavior and market trends.
- **Public Relations:** Public Relations is the profession of managing and communicating the image, reputation, and identity of an organization or an individual to its internal and external stakeholders, such as media, customers, investors, government, etc. Public relations professionals can work in different sectors, such as corporate, government, non-profit, etc. Public relations professionals need to have good communication, interpersonal, and organizational skills and a knowledge of media relations and crisis management.
- **Broadcasting:** Broadcasting is the profession of producing and distributing audio and visual content to the public through various media platforms, such as radio, television, internet, etc. Broadcasters can work in different roles, such as producers, directors, anchors, reporters, technicians, etc. Broadcasters need to have good technical, creative, and presentation skills and a knowledge of media production and distribution.
- **Film Making:** Film making is the profession of creating and producing motion pictures for entertainment, education, or information purposes. Film makers can work in different roles, such as directors, writers, actors, editors, cinematographers, etc. Film makers need to have good artistic, creative, and storytelling skills and a knowledge of film techniques and genres.



To make a career in various types of media, one needs to have a passion and interest for media and its various aspects. One also needs to have a relevant education and training in media and its related fields. One can pursue various courses and degrees in media, such as diploma, bachelor, master, or doctorate, depending on the level and area of interest. One can also gain practical experience and exposure in media by doing internships, projects, or freelance work in media organizations or agencies.

The Role Of Media Influence On Society

In today's world, you can't hide from the media in society. We are constantly exposed to television, movies, social media, news, and advertising. This has led to an

increase in the influence that media has on our everyday lives. Media can have both positive and negative effects on individuals and communities. We will explore the media's influence on society, including its impact on social norms, attitudes, and behavior.

Social Norms & Values

Melbourne, AUSTRALIA: Elizabeth Muling inspects a wall of some 750 television screens at the opening of TV50, an exhibition celebrating 50 years of television broadcasting, in Melbourne, 21 June 2006. The wall of 750 television screens which spans 70 metres is the largest in the world and visitors will be able to watch iconic Australian TV shows at their leisure as well as experiencing interactive displays. AFP PHOTO/William WEST (Photo credit should read AFP/AFP via Getty Images)

Media can shape our perceptions of social norms and values. It often portrays certain behaviors as acceptable or desirable while others are condemned. This can lead to individuals conforming to these perceived norms, which can have positive and negative consequences. For example, media can promote healthy living, respect for others, and community engagement. On the other hand, it can push negative behaviors such as substance abuse, violence, and intolerance. Negative stereotypes and biases can also be reinforced, contributing to discrimination and social inequality.

Attitudes & Beliefs

Publicity is one of the most pervasive forms of media and can significantly impact our behavior and attitudes. Hype is designed to promote products and services, and it often does this by promoting specific values and lifestyles. For example, advertising often promotes materialism and consumerism as desirable values. This can lead individuals to value possessions highly, contributing to debt and financial insecurity. Skewed advertising can further cause individuals to have negative outlooks on themselves, often as if they don't meet an acceptable societal standard.

Media can also influence our attitudes and beliefs about various issues. This is particularly true in the case of news media, which often shapes our political perspectives. News media can influence public opinion and even shape public policy. This can impact support for government policies and leaders. Similarly, entertainment such as television and movies can mold our attitudes and beliefs about various social issues, including race, gender, and sexuality.

Media can also have a significant impact on our behavior. For example, it can influence our attitudes toward substance abuse, violence, and sexual behavior. Studies have shown that exposure to media violence can increase aggression and violent behavior in children and adults. Similarly, exposure to sexual content in media can impact attitudes toward sexual behavior.

Media Literacy

Given the powerful influence that media can have on society, it is essential to develop media literacy skills. Media literacy involves the ability to analyze and evaluate media messages critically. This includes understanding the persuasive techniques used in advertising, recognizing bias in news media, and evaluating the accuracy of information presented in various forms. Media literacy skills can help individuals make informed decisions about their media consumption and help them resist negative influences. It can also empower individuals to create media messages that promote positive social norms and values.

Conclusion

Media is a dynamic and exciting field that offers many opportunities and challenges for those who want to pursue a career in media. Media is also a significant and influential force that shapes and impacts the society and the world. Therefore, one needs to be aware and responsible while working in various types of mass media and strive to contribute positively and constructively to the media and its audiences.

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FEMALE ATHLETES IN SPORTS IN INDIA AND THEIR CAREER DEVELOPMENT TODAY COMPARED TO THE 20TH CENTURY

Dr.Radha.P

College Director Physical Education
Govt First Grade College, Hebbur, Tumkur (D)

ABSTRACT

Women's participation in sports has a long history dating back to ancient Greece, however, the journey has been persistently marked by formidable challenges. Throughout history, female athletes have grappled with disparities in popularity when compared to their male counterparts. They have endured unequal funding, as well as open discrimination and even sexism. Furthermore, women have been glaringly underrepresented in pivotal sport institutions, decision-making bodies, and leadership positions in sports.

Keywords: Sports club, Evolution of sports, Challenges, Female athlete, Decision making

Introduction

The unenviable position of women in sports has come into focus on several occasions in recent times. A particularly notable incident unfolded at the **Women's World Cup in Australia**, where the president of the winning country's football team, Spain, congratulated one of the national team's goal scorers with an unsolicited kiss on the lips. The public criticised the act as wholly inappropriate, with many voices more harshly calling it a grievous violation akin to sexual assault. The incident catalysed a broader discussion on the subordinated position of women in sports and the egregious treatment of female athletes by individuals occupying positions of power within sport clubs and associations, predominantly held by men. Given that football stands as one of the sports predominantly governed by men, the resounding support the player in question received from both male and female colleagues and the broader public marked a significant stride toward acknowledging the challenges faced by female sports and improving the status of women in sports on an international scale.

From the days of ancient Greece to modern times, women have been fiercely competing in athletics. However, the evolution of women in sports has not been without challenges. Inequalities in funding and pay, gender stereotypes, discrimination and sexism are just a few examples that female athletes have faced throughout history. Despite these obstacles, female athletes continue to break barriers and inspire generations with their strength and determination.

Early History of Women in Sports

So where have we come from? The early history of women in sports is often associated with the Victorian era and the notion of proper decorum for ladies. Women were largely excluded from participating in organized sports until the late 19th century. While there are records of women playing field hockey and cricket in England as early as the 18th century, it wasn't until after the first wave of feminism that women began to participate in competitive sports on a more regular basis.

It wasn't until 1887 that the first Women's World Games were held in London. This event was organized by feminist activist Emily Pankhurst and featured five events: archery, lawn tennis, croquet, fencing, and Irish dancing.



While this event was a step forward for female athletes, it would be another nearly 50 years before women were allowed to compete in the Olympic Games. However, it wasn't until 2012 that all events at the Summer Olympics included female athletes.

The Evolution of Women's Sports

The history of women's sports is one of progress and overcoming adversity. Women have been participating in sports for centuries, but it was not until the late 19th and early 20th centuries that they began to be taken seriously as athletes.

In the early days of women's sports, most competitions were open only to amateurs. This changed in the 1920s when the first professional women's leagues were established.

Since then, women's sports have come a long way. Today, there are professional leagues for nearly every sport imaginable, and female athletes are competing at the highest levels of their respective fields. While there is still considerable room for continued improvement in terms of equality and opportunity, the landscape of women's sports has changed dramatically over the last century.

Despite advances in equality, women still face many obstacles when it comes to participation in sports. In some cases, this is due to outdated beliefs about gender roles. In others, it is simply because some people believe that women are not as capable as men when it comes to sports.

Overcoming these challenges has been central to the progress of women's sports. Female athletes have had to fight for their right to compete and prove time and time again that they are just as talented and deserving as their male counterparts. As more women break down barriers in sports, it paves the way for future generations of female athletes to achieve even greater success.

The Challenges Female Athletes Face Today

Female athletes have always faced challenges that their male counterparts have not. From having to prove their worth in a male-dominated world, to dealing with discrimination and unequal pay, female athletes have had to fight for their place in the spotlight.

Today, women's sports are growing in popularity and acceptance. However, there are still many challenges that female athletes face.

In some sports, such as basketball and soccer, women's teams receive far less media coverage than men's teams. This can lead to a lack of visibility for female athletes, which can make it difficult to attract sponsorships and grow their fan base.

Despite these challenges, female athletes continue to thrive and excel in their chosen sports. With more opportunities than ever before, there is no doubt that women's sports will continue to grow in popularity around the world.

The Future of Women in Sports

There is no doubt that women's sports have come a long way since they were first introduced in the late 19th century. Women athletes have fought and continue to fight for recognition, equality, and respect in the world of sports. While there has been much progress made, there are still many challenges that female athletes face today.

One of the biggest challenges is the lack of funding and support for women's sports. Although laws like Title IX have been introduced which were supposed to level the playing field by providing equal funding for men's and women's sports programs at schools, this has not always been the case.

In fact, studies have shown that women's sports still receive less attention and funding than men's sports. This is especially true at the professional level where women athletes often earn significantly less than their male counterparts.



Another challenge faced by female athletes is sexism and discrimination. This can manifest itself in different ways such as unequal pay, sexual harassment, or simply being treated as inferior to male athletes. Whilst improving, this kind of treatment is still all too common in the world of sports.

Despite these challenges, the future of women in sports looks very promising. Girls and young women all over the world are taking up sports, and they're showing that they're just as good as any male athlete. With more opportunities and more support, I believe female athletes will only continue to thrive in the years to come.

The Grassroots of Gender Disparities in Sports

Although female athletes first appeared as participants at the Olympic Games in Paris in 1900, it wasn't until the 2012 Summer Olympics that all events featured female athletes, and all national Olympic committees sent a female athlete to the Games. Women's professional sports generally gained momentum from the second half of the 20th century.

Despite numerous advancements and incremental progress that has occurred since, women's participation in sports continues to encounter daunting obstacles, including unequal media coverage, disparities in funding, and lower remuneration in comparison to male athletes. A concomitant issue lies in the underrepresentation of women in sport organizations, where women are markedly less involved in operational and executive roles.

Experts attribute these challenges to the unequal support for girls' and boys' participation in sports from a young age. Research reveals that girls between the ages of 6 and 9 exhibit equal interest in sports as boys. However, by age 14, girls drop out of sports at a rate six times higher than boys. Researchers contend that this alarming trend stems from the differential reinforcement girls and women receive regarding their participation in sports. Conversely, other studies underscore the profoundly **positive effects of practicing sports on girls**, enhancing their confidence, self-esteem, and critical skill development. Therefore, support for young female athletes proves as important for their development, just as it is for boys.

The Path of Change

Cultural transformation at the local and global levels is imperative and must emanate from every sphere of influence.

Women's sports have enjoyed increased visibility and popularity in recent years, thanks in part to successful international and national events, such as the FIFA Women's World Cup, the Women's Tennis Association (WTA) tour, and the US Women's National Basketball Association (WNBA) championships. These events have attracted burgeoning audiences and substantial media attention.



The emergence of female role models and inspiring athletes in the past decades has additionally bolstered the realm of women's sports. Affecting not only the popularity of female sports, but also addressing issues like gender, racial, social discrimination and participating in humanitarian causes, figures like **Wilma Rudolph, Billie Jean King, Serena and Venus Williams, Nadia Comaneci, Danica Patrick**, and many others, have garnered global acclaim and significantly elevated the status of women in sports. Digital platforms and social media have furnished female athletes with the means to connect with fans and champion their respective sports, thereby amplifying the visibility of women's sports.

Prominent women in high-ranking sports management positions have also successfully challenged stereotypes, including names like **Michele Roberts, Jeanie Buss, Kim Davis, Nicole Lynn, Kim Ng**, and numerous others who have been widely recognized for their leadership and advocacy for gender equality and women's rights in sports.

The Role of International Sport Institutions

At the level of institutions, efforts have been directed towards eradicating gender disparities in sports. In 2014, the International Olympic Committee (IOC) introduced Agenda 2020, which encompasses several key objectives that aim to bolster women's involvement in sports at all levels. They include promoting the presence of women in leadership roles within the Olympic Movement and the National Olympic Committees, as well as among athletes, coaches, officials, and administrators. The IOC has also instituted the Gender Equality Review Project to scrutinise and gauge progress in gender equality within the Olympic Movement and its affiliated sports organisations .

In September 2019, the European Commission established the High-Level Group on Gender Equality in Sport, a pivotal initiative which provides recommendations and guidance on the path toward gender equality in sports across the European Union. Furthermore, initiatives like "SheIS" and "See Her" have been set up to enhance the visibility of women's sports and challenge entrenched gender stereotypes in advertising and media.

The Role of Academic Sport Institutions

Championing gender equity in sports and **sport management** is of paramount importance for creating an inclusive and empowering environment, affording all individuals the opportunity to pursue their sporting aspirations crucial for their wellbeing.

Lack of role models in immediate vicinity and a set career path

As a young girl I was the first in my family and one of two in a class of 60 in my school aspiring to become a professional athlete. I had no idea as to how to go about my career and pave a path to success. If I wanted to become an engineer or doctor I don't think I would have faced the same problem. This was also true for the girls who are part of our program in Ambala, (I work for Art of Play Foundation, which works towards transforming physical education in government schools) when they represented the district team in football. They were all first in their family's history to have represented the district in any sport. Their parents were unaware of this opportunity for their girls till we intervened.



Girls from different government schools in Ambala, wearing the Ambala district football jersey for the first time. They are all a part of Art of Play Foundation's sports program.

In developed countries like America, the beginning and the end of your aspiring sports career is a known and has a set pattern. The Parks and Recreation Department in the local municipalities are in charge of providing facilities and organizing both girls and boys leagues in various popular games. These leagues are conducted at district, state and national level. Thus, being part of a sports league for both young and adults is a social norm. The route to professional sports is through the school and college sports scholarship systems, thus the path to become a professional athlete is consistent across the country. If you look closely, both these systems in America are government funded, easily accessible,

and are reasonably charged or mostly free. In India, majority of professional athlete's journey is a privately funded affair, with no one fixed route in place. How many of the rural population of women in India can really find private funds for their sports careers?

The role of a woman and biological myths

Herbert Spencer in 1894 distinguishes in his book Education, Intellectual, Moral and Physical, the way physical education was looked at in a girls and boys school in his times. He describes the boys playground as an “open graveled space with ample room for sports and exercises”, while the girls school playground had laid out “grim-grassplots, gravelwalk, shrubs and flowers, with absolutely no chance for any physical recreation”. Spencer, points out that the reason behind this difference is the way society defined the role of a woman and how sports was perceived to diminish a feminine exterior. He stated, “women developing a robust physique is undesirable, and rude health and abundant figure are considered plebian”. What was true in 1894, ironically is still true in 20th century India.

In India majority of low income groups of women are not allowed to play not just because of the fear of change in appearance as Spencer suggests, but also because of the patriarchal nature of our society, notion of sports being a masculine profession, biological myths like sports affecting child-birth and other rigid social norms. As a woman athlete I faced all of these problems growing up. My parents were constantly reminded by our well-wishers about the eminent dangers of choosing sports as a career. Some common concerns being,

- “Nobody wants to marry an athlete.”
- “There is no financial security in this profession.”
- “She has developed muscles like that of a man. There is nothing feminine about her.”
- “She travels alone all over the world, how can you let her do that? You need to be more responsible.”

If this was the case in a middle class urban society one can only imagine the situation at the rural level. ICRW did a study in Dholpur Rajasthan, to understand if girls like to play sports. The study found that while most of them wanted to play, they lost the battle of negotiation with their family. Fewer than half (48 percent) of the girls ages 12–14 reported that they can ask for play time from their parents once they complete their household chores. This number declined to 39 percent among 15–16-year-old girls and was only 33 percent among 12–16-year-old married adolescent girls.

Biological myths like sports affects a women's reproductive ability is a prevalent notion in the Indian society. Menstruation and its relationship with sporting activity has been a much written about issue and perhaps one of the earliest explored. It is a general belief that intensive physical activity among pre-pubertal girls gives rise to high rates of menstrual disorder. Contrary to popular belief, neither physical exercise nor even competitive sports have detrimental effects on pregnancy nor do they increase risk to the mother (Prakash, 1990) As early as 1960s many studies had shown that the among athletes complications of pregnancy appeared to be fewer, the duration of labour was also on the average shorter (Shaffer, 1972). It has been suggested that training for sports since it improves pain tolerance results in better endurance during labour. Some reports also indicate that there is a lower incidence of caesarean sections among women who have been in athletic training (Prakash, 1990).

Conclusion

Women's sports have come a long way in the past century, and it is exciting to watch female athletes continue to break barriers. However, there are still many challenges that these athletes face when it comes to equality with their male counterparts. The importance of advocating for gender equity in sports should not be overlooked. By supporting women's sports, we can create an environment where people from all

backgrounds and identities feel welcome and empowered to pursue their dreams on any playing field, track, or court.

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A STUDY ON ESSENTIAL SPORTS MARKETING STRATEGIES

Dr. Subramani.N

Physical Education Director
Govt Law College, Kolar

ABSTRACT

Even though 2020 was a game-changing year in every sense of the word, the sports industry is poised to bounce back and flourish in the coming years. With sports projected to thrive and fans hungrier than ever for sports content, now is the time to develop sports marketing strategies to grow your business. What is sports marketing, exactly? It's what you do when you craft and use sports-related content to promote your product or brand. This is a popular form of marketing that leverages the immense star power of sports to drive sales.

Keywords: advertising, videos, and social media posts, Fans, Sports media, sports business

Introduction

In the ever-evolving realm of modern sports where promoting the game is even more important than paying the game. Over the period, we need to adopt certain modern techniques for every business to grow. For example, if there is a businessman in a local shop and he wants to attract more customers to his shop. It is important to promote his brand among a large number of people to make them feel that his brand is worth purchasing. We need to do the same thing for promoting any sports business or brand as well.

Do you want to know how it's exactly done? To promote any sport, it is required to make people excited about the game. In the early days, people used to conduct campaigns to promote sports but nowadays it is not enough. With the ever-evolving world we need to adopt certain modern ideas and strategies to promote sports or sports-related businesses globally. In this article, we are going to guide you on what marketing strategies you should follow to promote sports.

While super bowl ads and athlete endorsements are well-known examples of sports marketing in action, sports marketing also include marketing that builds a brand around healthy or aspirationally athletic lifestyles. Using sports marketing strategies can add serious appeal for many consumers.

Understanding Sports Marketing

Sports marketing are a process of marketing that focuses on promoting sports globally. To do that with fineness, it follows different strategies to boost fan engagement, increase the sales of tickets, and so on. It is done to promote sports events, participant teams, players, and businesses related to sports. Sports organizers follow different marketing strategies which include:

- Sports organizers do advertisements for sports events, teams, players, and so on through different mediums like TV, radio, social media, etc.
- Sports marketers try to connect with fans through different platforms to promote the sports and to make fans excited about it.
- To attract more audience marketers promoted sports by creating ads, videos, and social media posts.



- The organization takes the help of famous people or celebrities to promote their sports brand.

Essential Strategies

Below you'll find five essential strategies to step up your sports marketing, including:

1. Targeting a specific audience
2. Creating engaging content
3. Timing your content perfectly
4. Building brand partnerships and sponsorships
5. Using social media

As you go through these tips, remember: With sports marketing, it's vital to keep up with emerging trends in the complex sports industry, such as downturns in television viewership and the increase in women sports fans. These elements can dramatically inform your strategic choices and how you implement them.

1. Targeting a specific audience:

As with any form of marketing, it is crucial first to determine and understand your target audience. Consider the characteristics of your niche audience, such as:

- **Location:** Keep in mind the local sports teams and athletic heroes that your customers might have. Are you targeting a regional or local audience? Speak directly to specific audiences with tools like email segmentation.
- **Interests:** Is your audience into basketball, sailing, golf, or hiking? The more specific you can be in your marketing strategy, the deeper the connection you will build with customers.
- **Lifestyle:** Know the lifestyle and goals of your customers. Are they trying to get in shape, be a serious athlete, or enjoy sports as spectators?
- **Income:** How your target audience chooses to spend their time and money can be affected by their income.
- **Age:** Your marketing tactics may need to be adjusted depending on the age of your target audience. Try to narrow down a specific bracket.
- **Level of athleticism:** Have an idea of your customers' level of athleticism or aspire to achieve. A casual jogger may not be interested in the same services or products as a marathon runner.



These factors can inform the details of your marketing campaigns.

For example, a campaign designed for young people on the West Coast who value an athletic, outdoor lifestyle will look vastly different from a campaign designed for older adults who might be more partial to nostalgic sports references and basic healthy lifestyle choices. Similarly, a campaign designed for youth and their parents will require its nuances.

While sports marketing centers on athletes, it doesn't always target them. When considering your target audience's athletic level, brainstorm ways you can appeal to them in unique ways.

2. Creating engaging content

If there is one thing sports fans — and your customers — are continually interested in, it is engaging content with their favorite sports figures. Should you be able to maximize the pre-existing networks of enthusiastic sports fans, you will open up your audience to new capacities.

Nike continues to reign as a brand that executes some of the most iconic sports marketing examples. They often pair with fresh new athletes and celebrities to create engaging content.

To fully tap into this plentiful resource of potential customers, consider using content marketing in the form of:

- Creating YouTube videos
- Starting a blog
- Developing press releases
- Getting started on Twitter



Suppose you can provide potential customers with compelling video, photo, and written content across multiple platforms. In that case, you can harness the excitement for celebrity and the passion for sports that many fans share. Content that features or interacts with their favorite sports players can be extremely engaging. Does uploading a video to YouTube seem daunting? Check out Constant Contact's resources designed to guide you through the process.

3. **Timing your content perfectly**

With sports marketing closely tied to seasonal sports and live events, it is important to consider the most effective time to post your content. For example:

- Ride the wave of pre-game buzz using effective event marketing strategies.
- Jump on opportunities to congratulate championship teams when everyone is watching.
- Keep a close beat on celebrity athletes and time content when they are most visible during the season — or when fans miss them in the off-season.



Timing is essential when scheduling content across all platforms. Consider when emails will be more effective versus social media. Once you've created the perfect rhythm for posting content and have developed an effective email campaign, consider using automation to keep consistent content rolling out to your customers and potential customers.

4. **Building brand partnerships and sponsorships**

Some of the most exciting elements of sports marketing come from its ties to popular sports and athletes. When developing your sports marketing strategy, consider:

- Using promotional contests: Contests can draw interest to your company and attract new followers to engage with your social media platforms. Promotions can create buzz and enhance customer outreach and interaction.
- Developing brand partnerships: Whether through a promotion or not, brand partnerships are a foundational part of sports marketing. Sports teams and sports brands often align to form a strong partnership. Take advantage of unique avenues for drawing in potential customers.
- Securing sponsorships: Sponsorships are an excellent way to generate brand visibility. Consider the times you have noticed a brand logo on jerseys, in stadiums, on the court, on helmets. Connecting with sponsors can mean gaining massive amounts of exposure.

5. **Using social media**

Sports marketing relies on exposure to sports and fitness fans. Because of this, social media is an excellent way to boost brand awareness. It is the modern cornerstone of

sports marketing because of many fans' deep connection with social media as a tool to enhance their game-watching experience.

Tap into this resource by creating a brand presence on:

- Facebook: While Facebook's newsfeed often competes with marketing efforts, it can often elevate sports marketing strategies. Use Facebook to engage with customers, increase awareness, and call them to action.
- Instagram: As a visually-driven network, Instagram is a great place to generate awareness and engagement through event-related posts.
- Twitter: Twitter is the perfect place to foster conversation. It is a popular place for fans to keep up with athletes' lives and thoughts, providing you with a great way to connect with potential customers.

About 52% of avid sports fans use their mobile device while watching an event on a different device. Harness this power by developing your social media marketing to connect with your customers before, during, and after the big game.

Importance of Digitalization in Sports Marketing

Digitalization plays a crucial role in sports marketing. From connecting with fans to keeping them excited about the game. All this is only possible by adapting the digitization process. Digital platforms like social media and other mobile apps help organizers and athletes connect with fans from every corner of the world.

It also allows them to connect with fans directly through messages and comments. Digital tools allow organizations to know the interests of the audience based on their search history. Analytics tools facilitate managers to study fan engagements and track their success.

Use Social Media to Connect with Fans

Social media is probably the best way to increase the fan base of any business if used in the right way. In sports marketing, social media enables players and sports marketers to interact with fans through chats, comments, or direct messages.

It allows them to promote their brand among a vast audience which helps them enrich their engagements. However, to do that it is important to follow the correct social media marketing strategy. Here is how you can use social media to connect with fans:

Choose platform

It is important to choose a platforms where you can find your target audience. It can be social media platforms like Facebook, Instagram, Twitter, and more such apps.

Provide quality content

Once you have chosen your platforms, you can share engaging content with fans related to sports events, team history, behind-the-scenes footage, and highlights to connect with them. You have to be creative and you should provide users with engaging content like unique ads, so that they will stay excited.

Interact with fans

You don't have to use social media just to share content but you also have to interact with fans. Interacting with fans is very important, as it will help fans build a sense of connection with your sports brand, players, and teams. You need to talk to them in messages, reply to their comments, and answer their questions through the Q&A session.



Video games and Esports sponsorships can help your sports marketing

Video games and Esports sponsorship help you in promoting sports in multiple ways. First of all, it is capable of attracting a new audience for your sports engagement. Esports generally have a different fan base, you can partner with Esports gamers to promote your sports to create a new and different fan base. You can collaborate with gaming influencers, as they have a large fan following and can help you promote your brand among millions of people.

Virtual Reality help you in Sports marketing

Virtual reality is an emerging technology that can help you in sports marketing in multiple ways. It is capable of providing fans with an amazing viewing experience. It enables fans to watch matches from different angles, making the game more exciting and engaging for them.

You can use the VR to provide fans with videos of your team behind the scenes, practice sessions, and highlights to keep fans connected with your team and players. Sports marketers can also use this to analyze fans' behavior, as VR platforms are capable of studying fans' behavior.

Collaborate with famous people to promote Sport

You can collaborate with famous personalities to promote your brand and it can be the best sports marketing strategy. Partnering with powerful personalities can help you enhance your sports brand engagement. You need to identify a partner who is potential enough and can benefit you in enhancing your fan base. For that, you need to identify a partner who has rich followers. You can select any famous film star, athlete, and influencer who suits best for your brand and business.

You can build a long-term partnership with that person by considering the benefits of both sides. You should discuss what kind of activities you want from him to promote your sports business. For example, you can ask him to shoot an advertisement for your brand or you can ask him to promote your sports or team on his social media account through posts or stories.

Conclusion

Now that you understand the importance of targeting a specific audience, creating dynamic content, building partnerships and sponsorships, and harnessing the power of social media, are you ready to develop your own sports marketing plan?

If you want to continue learning about sports marketing strategies, check out *The Download* — a free guide for recreation professionals that can show you how online marketing elements come together to build a more powerful business.

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A STUDY ON INVESTOR'S ATTITUDE AND PERCEPTION, AWARENESS TOWARDS MUTUAL FUNDS CONCEPT IN HASSAN DISTRICT AS AN INVESTMENT OPTION

Dr. Sumana B.K

Assistant Professor

Government first Grade College, Saligrama

ABSTRACT

Among various financial instruments which are based on capital markets mutual funds have evolved as a predominant investment instruments from two decades in India .But being a poor financially literate country the general population of India's majorly the tier two cities towns and village level are still not able to perceive the basic ideology of mutual fund instrument where the concept was designed to mitigate market risk by a collective approach utilizing a professional service for fund management to achieve pre determined objective of capital appreciation. Now mutual fund domain has witnessed innovation in terms of funds as well as service areas in our country. So a research is designed to investigate the perception and the attitude of investors in Hassan city, this approach can reveal the ideas of people towards fund selection ,way of investment and also their risk appetite .This research tries to bring out facts which can be useful to fund houses to understand investors psychology in emerging areas.

Keywords : *Mutual funds, Perception, Attitude, Hassan*

Introduction

India has witnessed a total collection of fixed deposits into various banks amounting to rupees 6 lakh crores as on august 2020 which means the people of India are still traditional investors who rely on traditional investment. Mutual fund as a concept was introduced in 1963 by the government through unit trust of India, later many other government bodies introduced their own funds namely state bank group, Punjab national bank group etc. The real phenomenal changes occurred with security exchange board and The Association of Mutual Funds in India which came into existence in 90's decade. With these watch dogs in place people slowly started believing and took courage to investment into emerging products like shares, scripts and mutual funds, bonds mainly.

After early 2000 decade Indian MF sector has seen an operational increase of fund house coming into India to operate seeing the potential market lying which was untapped. Today India has 44 fund houses with 2500 mutual fund scheme operating in various segments of capital market to exchange trade funds. Recently many product innovations is witnessed like thematic funds, health care funds and speciality funds which are aligned according to risk interest of the potential investors. What is a mutual fund is a question rarely understood by the commons in India, to define its a collective investment tool designed to give opportunities to retail or individual investor to put his small savings to large investments into a fund which is managed by a professional fund manager with domain knowledge and expertise, all these are well defined and regulated by the specified government bodies with laws and regulations. The retail investors can invest with limited knowledge into funds with objective of dividend returns or capital appreciation in long term horizon to meet his life financial goals. The mutual fund is well integrated product managed by a fund house and the investment is given as units to the retail or institutional investors which are based on capital markets and also updated daily in terms of information sharing. The investments collected by fund houses are called assets under management which are deployed into various markets to generate returns. India as on September 2020 has 27,74,146 crores. The AUM of the Indian MF Industry has grown from ₹ 6.57 trillion as on

September 30, 2010 to ₹26.86 trillion as on September 30, 2020 about 4 fold increases in a span of 10 years.

India mutual fund investment according to the cities are categorized as two parts namely T15 which includes top 15 cities of India which nearly contribute around 65% of mutual business and the other is B15 means beyond 15 cities majorly the small cities ,towns, tier two cities come under this umbrella. Here it's witnessed the remaining contribution of 35% towards mutual fund folios. From this it's evident that there is wide dispersion of investment awareness and perception towards mutual fund concept in India.

Objectives of research

- To study the investors' attitude towards MutualFund concept
- To study how investor perceive mutual fund as a investment option
- To analyze the investors economic and social profile and orientation towards MutualFunds.
- To study any bias or misconception towards mutual fund concept.

Design of research

This research is done on descriptive approach supporting the data collected where analytical approach is used to analyze factors effecting decision making, which is controlled by their perception and attitude towards mutual fund concept. For the study purpose Hassan city has been considered which comes under b15 category.

Data collection methodology

The data which is required for the study is obtained by a structured questionnaire which consists of total 21 questions based on demographic factors and investment oriented elements. Secondary data were assimilated through AMFI websites and economic forums and news papers articles dedicated towards mutual fund industry.

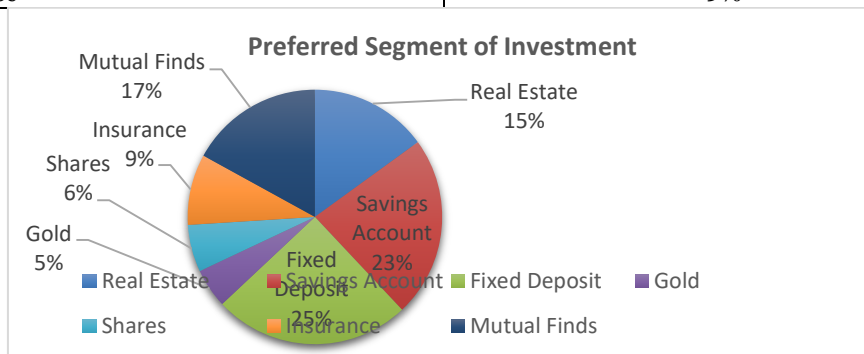
Sampling Plan

- Target Population** : Hassan
- Sampling Unit** : Individual investors of Hassan city and District
- Method of sampling** : convenient sampling and Random Sampling
- Sample size** : 00

Inference of research question -

what is the preferred investment segments do you prefer the most while investing your savings ?

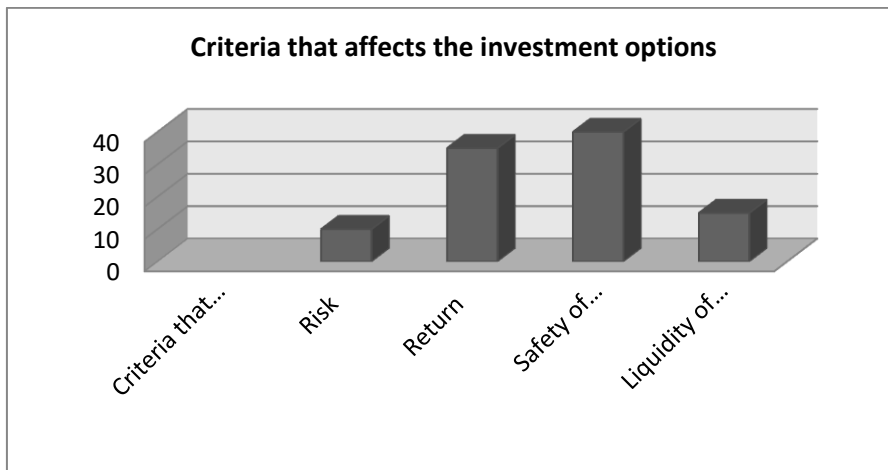
Preferred segment of Investment	
Real Estate	15%
Savings Account	23%
Fixed Deposit	25%
Gold	5%
Shares	6%
Insurance	9%



When the sample population were asked about the various investment avenues which are easily available for investment. Mainly seven instruments were selected for the study based on market research. The population showed a strong inclination towards traditional products like fixed deposits, saving accounts where funds are kept for liquidity purpose. This question has proved banking products have more appeal and very popular among tier two cities. Real estate is also seen as invested but due to huge investment required initially its not a options for many, gold is seen as a investment by very less as it's just a ornamentally value and cultural boundary mask it as resell option when the prices fluctuate. Market based investment is the least where directly investment into shares as an investment is seen very less. Insurance which is also a savings tool is not so popular reveals the study as many does not like to invest into insurance due to varied reason like long term, less returns and many have not understood the concept of economic value of human life in terms of uncertainties. Lastly the mutual fund has evolved and slowly it has Opicked up the pace as many are showing inclination towards this concept as investment option to many.

Which criterion affects your choice of investment the most?

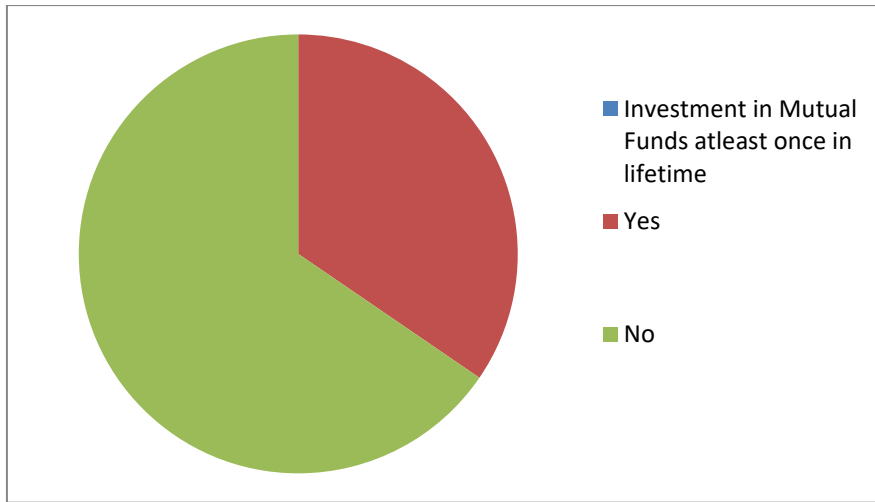
Criteria that affects the investment options	
Risk	10
Return	35
Safety of principal	40
Liquidity of Investment	15



When the question of parking their funds which are earned hard way the sample population were asked which criteria they look and give the most important factor in considering an investment tool, the twin factor of safety of the amount invested as well as the return were considered as the most priority. Whereas liquidity and the risk also are considered while investments as future anticipation of uncertainties for health expenditure, planned life goals etc were opined out.

Have u invested into mutual fund at least once in life time?

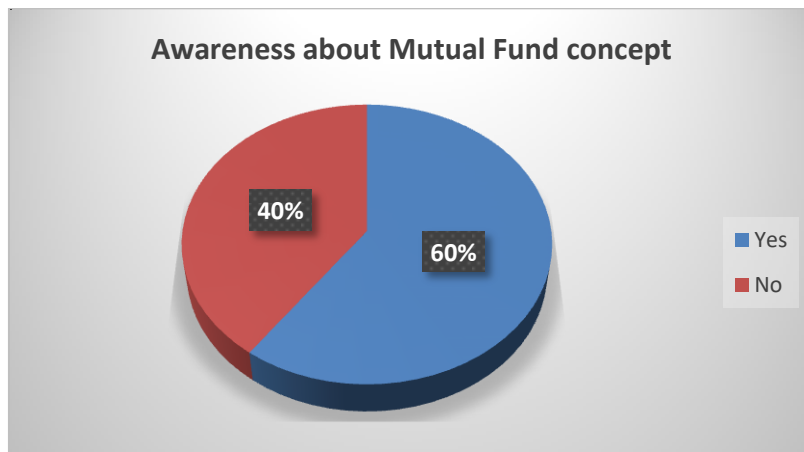
Investment in Mutual Funds atleast once in lifetime	
Yes	38
No	72



when the people were asked whether they have invested into mutual fund at least once in their life span as the idea behind the question the rationality was the mutual fund was in existence from almost three decades in India so people would had encountered this concept in one way or the other, the finding revealed that nearly 72 of the population have never invested into mutual fund concept ever.

Are you aware or heard of concept of mutual fund?

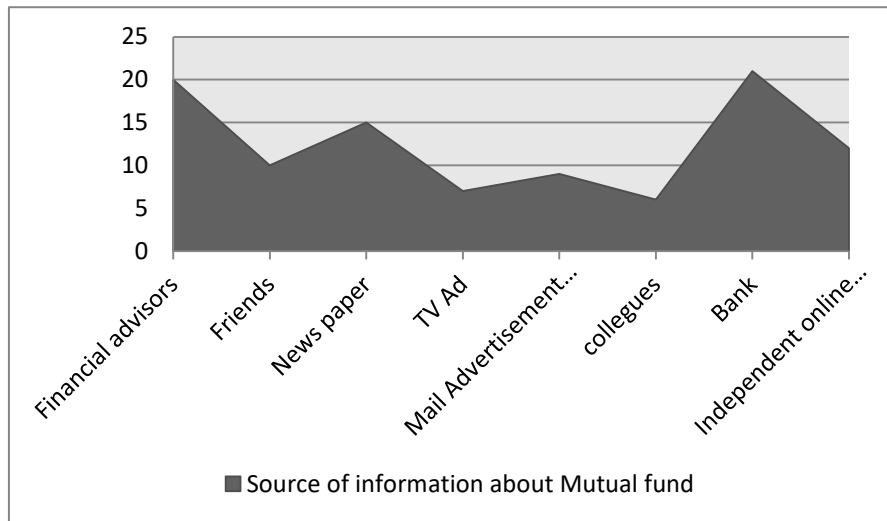
Awareness about Mutual Fund concept	
Yes	60
No	40



when the target were asked in any way they have heard about the concept of mutual fund or are they aware about the mutual funds in India, the research revealed that nearly 60% of people had come across the word mutual funds and they were aware of the concept. Whereas the remaining population had not heard about the mutual funds at all.

How did you come to know about mutual funds concept?

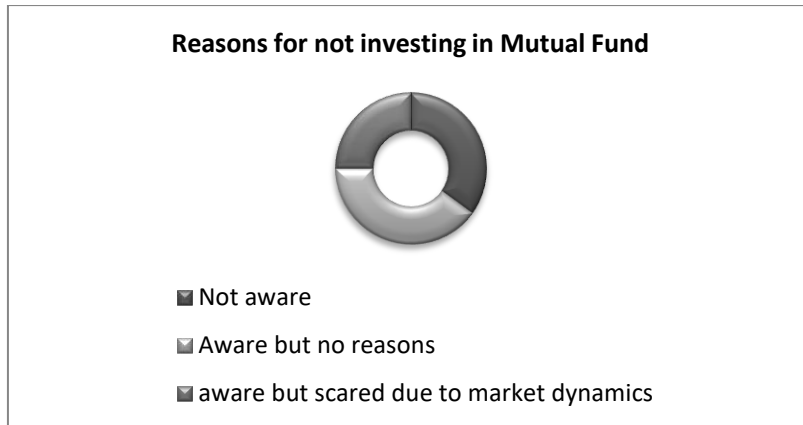
Source of information about Mutual fund	
Financial advisors	20
Friends	10
News paper	15
TV Ad	7
Mail Advertisement and social media colleagues	9
Bank	21
Independent online research	12



When 60% of the population accepted that they are aware of mutual fund, the research tried to find out from which sources they are aware about this and which channel is giving a reach to people in making education towards investing into mutual funds. The most important channels were banks and independent financial advisor were spreading the concept following which news paper advisement also played a prominent role. Lastly people also search about the concept on their own to explore and understand .lastly friends and colleagues also play role in spreading awareness to see and consider mutual fund as an avenue to invest in era. Even social media and mail marketing has its own weight age as an awareness tool.

What are the reasons for not investing into mutual funds?

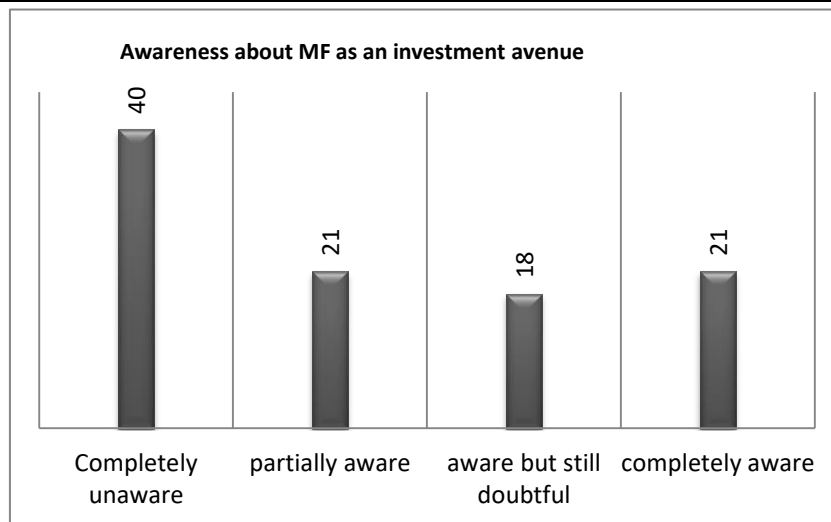
Reasons for not investing in Mutual Fund	
Not aware	35%
Aware but no reasons	40%
aware but scared due to market dynamics	25%



When population was asked the question about why they have not invested into mutual funds nearly 35% said there are totally unaware about the concept in any way nor they have a idea of it ,the second interesting fact is a segment of people are aware but for unknown reason they have not considered mutual fund as investment option at all among their portfolio, also one segment says that their aware but they are pessimist towards this as its linked with market in terms of investment and also returns based on market movements.

Are u aware that mutual fund is also investment option for investment?

Awareness about MF as an investment avenue	
Completely unaware	40
partially aware	21
aware but still doubtful	18
completely aware	21

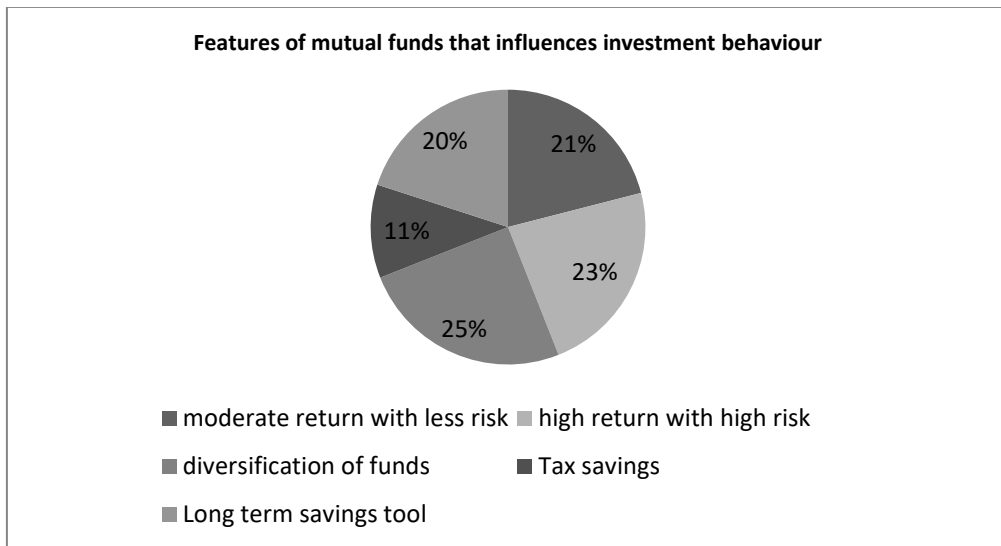


When the research tried to find out in which level can people be categorised in terms of awareness about mutual fund or if we want to where do people stand in awareness arena about mutual fund option nearly 40% are completely ignorant of concept, secondly nearly 21% are partially aware about the concept as in earlier question its proved how

various channels are playing a strong role in spreading awareness, there in one more very interesting segment which draws our attention that is people are aware but still doubtful on various elements involved in mutual fund in total. But nearly 21% of the population are completely understood the entire concept of mutual fund which is good sign of acceptance of this concept in a developing economy like India.

What the factors which have influenced you to invest into mutual fund as an investment?

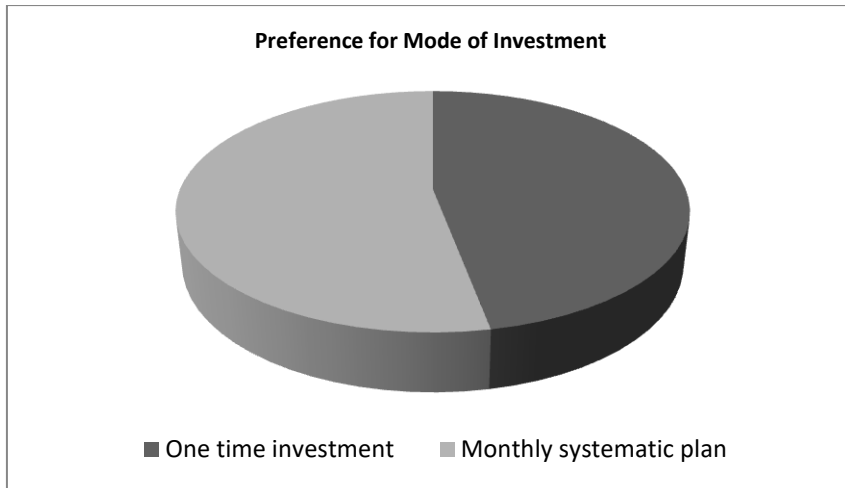
Features of mutual funds that influences investment behaviour	
moderate return with less risk	21
high return with high risk	23
diversification of funds	25
Tax savings	11
Long term savings tool	20



When asked the population what made them to invest into mutual fund the investigation revealed people feel when invested into balance fund it can generate moderate returns with less risk element, where as other segment felt investing into diversified equity and mid cap based fund and equity funds can generate higher returns with high risky if u have a risk appetite. whereas the how mutual fund works in terms of funds getting invested into various segments and also fund is not investing into a single equity component as all funds have a border horizon of investment as investment has a portfolios of debt ,bonds and equity holdings. The population also felt is can be invested for tax saving as few funds as generating tax savings under section 80 c as equity linked savings schemes are eligible for tax saving and recognised by government. Few people are also revealed the mutual fund can become a long term investment for investment to achieve life milestones in pre designated time like children education, retirement planning etc.

What is your convenient mode to invest into mutual funds?

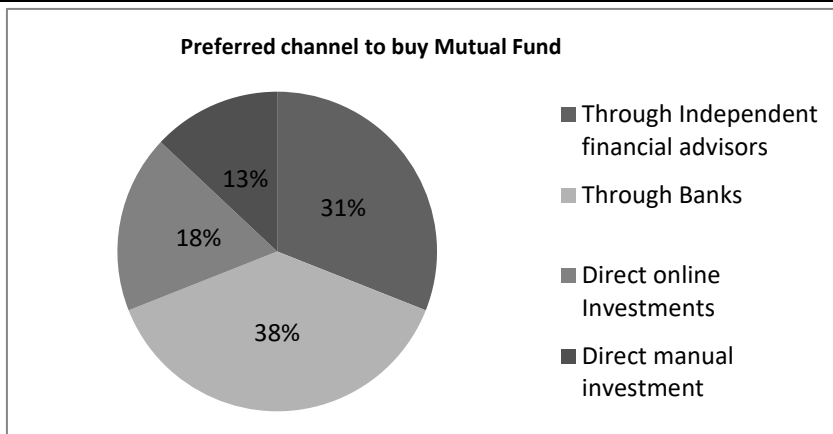
Preference for Mode of Investment	
One time investment	47
Monthly systematic plan	53



The investor population when asked how do they prefer to invest into mutual’s funds which mode is convenient to them to invest without hurting their financial planning majority f them revealed systematic investment plan is preferred. As it gives the option to invest a specified amount on regular time like monthly on a specified date. Here a small amount can be invested regularly monthly to build a big corpus spread over a long period of time. The other population group revealed that they prefer to invest lump sum amount as and when they have a cash flow which can be invested into new fund offer or gong on funds based on fund growth.

There are various channels to invest into mutual funds, among these which channel do u feel comfortable to transact with and get services?

Preferred channel to buy Mutual Fund	
Through Independent financial advisors	31
Through Banks	38
Direct online Investments	18
Direct manual investment	13

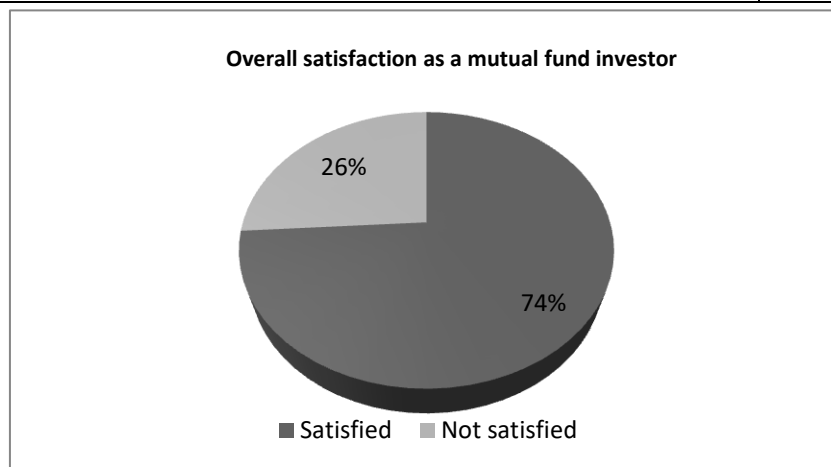


When the population was asked about the various channels which do sales and also service management of mutual fund investors, many of them preferred the banking channels as an easy way to transact and also get serviced because as banks are all ready into financial service and would had handle the clients portfolios earlier with history of

relationship. Secondly people also prefer personal attention through independent financial advisor who give a personal touch to service required. The emerging channel such as online investment where the investors are searching about mutual funds on their own and also invest through the fund house website directly is also seen as a strong emerging channel. But there are very few people who go in search of mutual fund office in their respective places and invest voluntarily are very scarce.

Are you satisfied with the concept of mutual funds in terms of their fund performance and also the services given by the fund houses towards investors?

Overall satisfaction as a mutual fund investor	
Satisfied	74
Not satisfied	26



When the people who have invested into mutual funds and have stayed invested where asked about the question on how was the fund performance of the funds selected by them for investment or been advised to invested it generated a very positive response as nearly 74% of the people told they are over all satisfied with the fund performance and also the various service given by the companies like investors knowledge enhancements, investors communications, fund switches, additional investment such as top ups and also the redemption services given are good and are meeting the expectations of the investors. A small group were not satisfied with mutual funds due to bad selection of mutual fund schemes and also they complained of changing regulation which makes investment into mutual fund a more tedious task.

Findings of the research-

- During the research it was found that evidently the mutual fund concept is not new to people but still in spite of so many fun houses and schemes launched still the awareness is very low which is an opportunity way ahead for growth of sector .
- People thinking is still aligned to traditional approach towards investment
- People can open to concepts and risk to return concept also has a weight age in gauging investment options.
- People with small income also have invested through systematic investment plan which is good way to accelerate the attitude of savings among economic population.
- People have not invested into mutual funds due to unknown reasons which is consumers black box which has to tapped to make the concept a knowledge version for its penetration among the ignorance segment.
- Online mode of investment where the client studies and chooses plans suitable for his needs are emerging on a positive note.

Suggestions

- Mutual fund companies have to open small branches of their own in tier 2 cities and town level, where the reach can be done through investor education programmes. In the village level the gram panchayat meetings can be made knowledge sharing and discussion forum to spread the concept as during the study it was mainly concluded that lack of awareness and also aware but not completely was found this requires a knowledge approach to spread the concept and tap the rural masses who can be benefited by this investment options.
- As banks are seen as a strong financial service provider by the population more emphasis with bank ties and distribution of mutual funds through banks can do a drastic change in tier 2 cities and village level, as people's confidence with banks can be capitalized to approach and educate.
- Even post offices can be seen a future service and sales point in the most remote areas to reach the population as postal departments already have savings schemes and postal insurance can be utilized and product bundling can be made to spread the concept.
- Online investors awareness has to conducted as to tap the educated and young earning population who can be educated at a young age and be given opportunity to invest for long time and reap the benefits of mutual fund schemes in order to achieve the financial milestones in a planned phases.
- People have also revealed a strong likely towards government owned mutual fund schemes during the study which indicate that government's banks and financial institutions have ample opportunities to venture into mutual fund business and build on peoples trust in turn contribute to the circular flow of economic cycle.

Conclusion-

The study as revealed that mutual fund concept is still in a nascent stage of its growth cycle as people are unaware of these and mainly in tier -2 cities there is ignorance at large, also people are half educated about the concept. It's the failure of mutual fund companies on these fronts of not exploring these areas .Few people have shown a keen interest in concept which clearly concludes that still people have to educated, marketing or sales concept cannot be applied to this financial instruments as it's a knowledge game .people to have understand then invest because it's a long term engagement between the clients and fund houses. Banks can be a major game changer if they venture into mutual fund business and penetrated properly to the rural markets where the next investment play ground can be set to make a fair play of investment acquisition and giving back a fair returns to the population can create a balanced economy to drive India towards developed nation's league.

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SPORTS AND PHYSICAL EDUCATION ELEVATES ACADEMIC PERFORMANCE AND DISCIPLINE

Dr. Vijayakumar Hiremath

Lecturer, B.V.V.Sangha's

Basaveshwar College of Physical Education, Vidyagiri, Bagalkote

ABSTRACT

The relationship between sports participation and student academic excellence has been a topic of interest and research for many years. While it was once believed that sports could distract from academic pursuits, recent studies and observations have shown that the impact is quite the opposite. This article explores how involvement in sports can positively influence students' academic performance and overall educational experience.

Keywords: Mental health, Academic performance, Research, Academic performance

Introduction

Sports education in schools hold multifaceted significance, fostering holistic development beyond physical fitness. It impacts mental well-being, academic success, discipline, and ethical values, shaping well-rounded individuals ready for life's challenges.

In today's competitive world, the importance of sports education in schools cannot be overstated. Sports play a vital role in making children strong from the inside while inculcating the importance of maintaining a fit and sound body. According to a recent study, 73 per cent of parents recognise the benefits of sports for their child's mental health, 88 percent consider it advantageous for physical health, and 55 per cent believe in its positive impact on academic and career prospects.

These numbers underscore the undeniable value of integrating sports into the school curriculum, not just for physical fitness but also for fostering and refining young sports talent. Manjula B, VP Academics for sports, Orchids The International School has shared how immersion in sports from a young age contributes to the holistic development of students.

1. **Fostering talent and holistic development** - The key benefits of an integrated sports curriculum in schools extend far beyond the physical realm. It lays the foundation for fostering talent and holistic development amongst students in multiple dimensions.
2. **Impact on physical health** - Integrating sports into the curriculum is an effective way to address the pressing issue of declining physical fitness amongst today's youth. Regular physical activity promotes better cardiovascular health, reduces the risk of obesity, and encourages an active lifestyle from a young age. Schools' approach to sports helps students develop lifelong habits that contribute to their physical well-being.
3. **Enhancing mental well-being** - In a world where students face increasing academic pressures and stress, sports provide a vital release valve. Engaging in physical activities releases endorphins, natural mood elevators that alleviate stress, anxiety, and depression. This not only promotes mental health but also enhances focus and concentration, which can positively impact academic performance.



4. **Academic performance** - Contrary to the misconception that sports might detract from academic success, research consistently shows that physically active students tend to perform better in the classroom. Physical activity improves cognitive function, memory, and problem-solving skills. Additionally, organising inter-section matches during exams serves as a stress reliever since it helps students overcome exam anxiety, and their mindset undergoes a positive transformation following the match, regardless of the outcome.
5. **Long-term discipline and teamwork** - Early exposure to sports within the curriculum plays a crucial role in shaping a student's long-term discipline, teamwork, and dedication. Participating in sports teaches students the importance of commitment, time management, and goal-setting. These life skills are transferable to various aspects of life, including their future careers.
6. **Ethical values** - sports, whether it's chess or team sports, instil ethical values such as fair play, sportsmanship, and respect for opponents. These values are ingrained in students from an early age, contributing to their development as responsible and respectful individuals.

The integration of sports into the school curriculum is a multifaceted approach that benefits students in numerous ways. By addressing physical health, mental well-being, and academic performance, this approach prepares students not only for academic excellence but also for success in life.



Early exposure to sports within the curriculum cultivates discipline, teamwork, and ethical values that extend beyond the playing field. It shapes a generation of healthier, adept, and disciplined athletes, contributing to their holistic development and preparing them to face life's challenges

with confidence. For a long time, sports have been viewed as a way to stay healthy and in shape, but their importance goes much further. As a matter of fact, playing sports teaches life lessons like discipline, responsibility, self-confidence, accountability, and teamwork.

Studies have shown that exercise increases blood flow to the brain and helps the body build more connections between nerves, leading to increased concentration, enhanced memory, stimulated creativity, and better-developed problem solving skills. In short, playing sports helps your brain grow and makes it work better.

From a social standpoint, sports are a powerful tool that brings people together and creates a sense of community. They develop connections that bond together people from all walks of life.

The reason most students do not play sports is because they feel lazy about it and don't have the energy for it. However, the belief that the intense exercise of playing sports will leave you exhausted has been proven wrong by research. Because exercise pumps more oxygen through your blood and makes your entire system more active, the benefits of playing sports actually include giving you more energy to accomplish everything else you need to do to manage your busy college schedule.

To sum up, playing college sports has some serious benefits. Besides just being fun, sports can help you perform better in school, relax more and worry less, deal with setbacks, work better with others and increase your energy — all of which helps you balance school and everything else going on in your life.



Exploring the Impact of Sports on Academic Excellence in Students

- ✚ Improvement in Time Management and Organization : Students involved in sports learn to manage their time effectively, balancing training, competitions, and academic responsibilities. When they need help with the latter, they contact Trust My Paper – a writing service that can easily pick up their slack. This necessity to prioritize and organize can cultivate exceptional time management skills. Athletes often develop routines and schedules to accommodate their sporting commitments, which can translate into disciplined study habits. The ability to juggle multiple responsibilities effectively is a vital skill that contributes to academic success and is valuable in future professional life. Time management skills fostered through sports enable students to utilize their study time more efficiently, leading to improved academic performance.
- ✚ Positive Impact on Mental Health : Sports play a significant role in enhancing students’ mental health and well-being, which is closely linked to academic performance. Physical activities release endorphins, the body’s natural mood elevators, which reduce stress and anxiety. Lower stress levels can lead to better focus and concentration on academic tasks. Additionally, the sense of accomplishment and self-esteem gained from sports achievements can spill over into academic pursuits, providing students with the confidence and motivation needed to excel in their studies. A positive mental state is crucial for effective learning and academic excellence, as well as balancing them with your learning. If you think the latter can’t be done, we encourage you to look here for facts about famous athletes who could do it all.
- ✚ Enhancement of Cognitive Skills : Participation in sports has been shown to significantly enhance various cognitive skills in students, which are essential for academic success. Physical activity increases blood flow to the brain, improving concentration, memory, and classroom behavior. Sports often require quick thinking and decision-making, skills that can transfer to academic tasks. For instance, a student adept at strategizing in a team sport may find it easier to plan and execute complex projects or solve intricate problems in their studies. Moreover, sports can instill a sense of discipline and focus in students, invaluable traits in an academic setting.
- ✚ Development of Teamwork and Social Skills : The teamwork and social skills developed in sports directly apply to group projects and collaborative tasks in academic settings. Students who participate in sports learn how to work effectively as part of a team, communicate clearly, and understand the dynamics of group work. These skills are critical in many aspects of academic life, from classroom discussions to group assignments and presentations. Collaborating effectively with others can enhance the quality of a student’s academic work and lead to better academic outcomes.
- ✚ Building Resilience and Perseverance : Participation in sports teaches students resilience and perseverance, which are essential



for academic success. The competitive nature of sports means that students often experience both wins and losses, teaching them how to cope with setbacks and failures. This resilience can help students persevere through challenging academic tasks, exams, and projects. The determination and ‘never give up’ attitude fostered in sports can inspire students to approach their studies with the same tenacity, leading to improved academic performance and a greater likelihood of achieving their educational goals.

- ✚ Enhanced Goal-Setting Abilities: Another significant impact of sports on students’ academic excellence is the enhancement of goal-setting abilities. Sports inherently require setting specific, measurable, and time-bound goals, whether improving personal bests, mastering a new skill, or winning a championship. This practice of goal-setting in sports can seamlessly translate into academic settings. Students learn to set clear objectives for their studies, break down larger goals into manageable tasks, and develop strategies to achieve them. This skill of setting and pursuing goals is crucial for academic success. It instils a sense of purpose and direction in students, motivating them to strive for excellence in their educational endeavors. By learning how to establish and work towards achieving goals in sports, students are better equipped to apply these techniques to their academic pursuits, leading to improved performance and a greater sense of accomplishment.
- ✚ Cultivation of Leadership Skills : Participation in sports also plays a crucial role in cultivating leadership skills among students, which can greatly benefit their academic and future professional life. Sports offer numerous opportunities for students to take on leadership roles, such as team captains or coordinators of sporting events. These roles require them to make decisions, lead by example, motivate team members, and resolve conflicts. These leadership experiences in sports help students develop confidence, initiative, and the ability to influence and guide others. These skills are directly applicable to group projects, leadership roles within academic settings, and future career paths. A student who can lead effectively on the sports field is often well-prepared to take on leadership roles in academic and professional contexts, contributing to their overall success and personal development.



The impact of sports on academic excellence in students is significant and multifaceted. By enhancing cognitive skills, improving time management and organization, positively impacting mental health, developing teamwork and social skills, and building resilience and perseverance, sports can contribute greatly to a student’s academic success. The skills and attributes developed on the playing field can be invaluable assets in the classroom, helping students achieve academic excellence and preparing them for future challenges in higher education and beyond. As such, integrating sports into students’ lives should be encouraged and supported as a vital component of their overall educational experience.

Conclusion

From an authentic and practical to a mechanistic perspective, physically active and aerobically fit children consistently outperform their inactive and unfit peers academically on both a short- and a long-term basis. Time spent engaged in physical activity is related not only to a healthier body but also to enriched cognitive development and lifelong brain health. Collectively, the findings across the body of literature in this area suggest that increases in aerobic fitness, derived from physical activity, are related to improvements in

the integrity of brain structure and function that underlie academic performance. The strongest relationships have been found between aerobic fitness and performance in mathematics, reading, and English. For children in a school setting, regular participation in physical activity is particularly beneficial with respect to tasks that require working memory and problem solving. These findings are corroborated by the results of both authentic correlational studies and experimental randomized controlled trials. Overall, the benefits of additional time dedicated to physical education and other physical activity opportunities before, during, and after school outweigh the benefits of exclusive utilization of school time for academic learning, as physical activity opportunities offered across the curriculum do not inhibit academic performance.

Both habitual and single bouts of physical activity contribute to enhanced academic performance. Findings indicate a robust relationship of acute exercise to increased attention, with evidence emerging for a relationship between participation in physical activity and disciplinary behaviors, time on task, and academic performance. Specifically, higher-fit children allocate greater resources to a given task and demonstrate less reliance on environmental cues or teacher prompting.

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THE EFFECTIVENESS OF PHYSICAL EXERCISE THERAPY CURE THE BONE DENSITY IN OSTEOPOROTIC PATIENTS

Dr. Vishwanathaiah.S

College Director Physical Education
Govt First Grade College for Women, Ramanagara

ABSTRACT

Physical exercise is considered an effective means to stimulate bone osteogenesis in osteoporotic patients. The current literature to define the most appropriate features of exercise for increasing bone density in osteoporotic patients. Two types emerged: weight-bearing aerobic exercises, i.e., walking, stair climbing, jogging, and Tai Chi. Walking alone did not appear to improve bone mass; however it is able to limit its progressive loss. In fact, in order for the weight-bearing exercises to be effective, they must reach the mechanical intensity useful to determine an important ground reaction force. Strength and resistance exercises: these are carried out with loading (lifting weights) or without (swimming, cycling). For this type of exercise to be effective a joint reaction force superior to common daily activity with sensitive muscle strengthening must be determined. These exercises appear extremely site-specific, able to increase muscle mass and BMD only in the stimulated body regions. Other suggested protocols are multicomponent exercises and whole body vibration.

Multicomponent exercises consist of a combination of different methods (aerobics, strengthening, progressive resistance, balancing, and dancing) aimed at increasing or preserving bone mass. These exercises seem particularly indicated in deteriorating elderly patients, often not able to perform exercises of pure reinforcement. However, for these protocols to be effective they must always contain a proportion of strengthening and resistance exercises. Given the variability of the protocols and outcome measures, the results of these methods are difficult to quantify. Training with whole body vibration (WBV): these exercises are performed with dedicated devices, and while it seems they have effect on enhancing muscle strength, controversial findings on improvement of BMD were reported. WBV seems to provide good results, especially in improving balance and reducing the risk of falling; in this, WBV appears more efficient than simply walking. Nevertheless, contraindications typical of senility should be taken into account.

Keywords: Muscle strength, multicomponent, Vibration, walking, jogging,

Introduction

According to the literature, the level of bone loss in a postmenopausal woman increases with age, respectively, with a loss of 0.6%, 1.1%, and 2.1% per year for the 60-69, 70-79, and > 80 age groups. More precisely, the loss is 1.5% per year for the spine and 1.1% - 1.4% for the femoral neck in the first 4-5 years. In the following years, the loss is less rapid as it is the immediate postmenopausal period characterized by a greater speed and entity of bone loss. Although exercise is widely recommended as one of the primary preventive strategies to reduce the risk of osteoporosis, its effects on bone are controversial. In fact, not all types of exercise have the same positive effect on bone mineral density (BMD). While there is evidence that exercise induces an increase in bone mass in younger subjects, this effect in adults and elderly people remains questionable. In elderly people, the results of the studies indicate that exercise may increase the thickness and resistance of cortical bone at loaded skeletal sites. However, it seems that the improvement on bone strength



induced by exercise in older adults is likely to be due to a lower loss of end cortical bone and/or an increase in tissue density, rather than an increase in bone size (periosteal apposition), typical of young subjects. Supposing that trabecular bone architecture can adapt to increased loading, the effects of physical activity on thickness, number, separation, and orientation of trabecular elements in human bones are not known due to the limited resolution of most current commonly used imaging techniques.

Therefore, there is considerable interest in defining the adequate dosage and characteristics of exercises to improve bone strength in osteoporosis, in order to develop appropriate guidelines, given the fact that economic and social costs appear to be in a progressive and constant growth in relation to the aging of the population.

In the past years, many studies have reported very consistent results on the beneficial effects of exercise on BMD of the lumbar spine and the femur in menopausal women and, in general, in old age. Various exercises have been described to stimulate bone growth and preserve the bone mass; the optimal interventions are those favoring a mechanical stimulus on bone both through antigravity loading and the stress exerted on muscles. In general, therapeutic exercises for osteoporosis can be ranked in two types of activities:

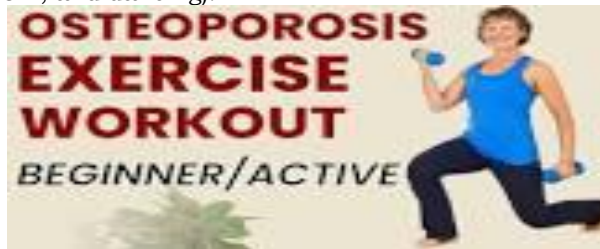
Weight-bearing aerobic exercises, such as impact activities or any other exercise in which arms, feet, and legs are bearing the weight, (i.e., walking, stair climbing, jogging, volleyball, tennis and similar sports, Tai Chi, and dancing).

Strength end/or resistance exercises, in which the joints are moved against some kind of resistance, in the form of free weights, machines, tubing, or one's own body weight.

However, it is still not clear which exercise is the best suited and how long it would take to obtain an appropriate result. For example, the

SIOMMS guidelines recommend performing a minimum of physical activity, such as walking, for 30 minutes every day, despite the lack of available evidence. Meanwhile the position paper in the American College of Sports Medicine suggests, during adulthood, to carry out weight-bearing endurance activities (i.e., tennis, stair climbing, and jogging), activities that involve jumping (volleyball, basketball), and resistance exercise (weight lifting) with moderate or high intensity, 3-5 times a week for 30-60 minutes, possibly in combination.

The effects of exercise on bone tissue have gained an important contribution also from studies on sport athletes. Numerous publications have linked physical exercise, bone metabolism markers, and bone mineral density. While the isolated exercise (single bout training) seems to give a fleeting osteogenetic stimulation, a longer training, for example, 2 times a day for 5 weeks, seems to provide a better stimulation. Furthermore, aerobic exercise seems to be particularly effective in the enzymatic activation of the osteoblasts. These observations underscore the importance of combining aerobic and anaerobic exercises in osteogenetic protocols. Furthermore, after a longer period of training (6-12 months), the sedentary and untrained individuals obtained better results in BMD than the already trained individuals with significant osteogenetic activity without increasing the reabsorption indexes. Probably individuals already trained with the continuation of exercise only maintained the good bone metabolic level already reached, which can not indefinitely increase. Regarding the type of exercise, sport shows us clearly how the activities performed in weight bearing, including high impact and endurance mechanical components, are more effective in increasing the BMD of limited or nonimpact exercises. In fact, BMD is on average higher in athletes with sporting activities involving jumping (volleyball, basketball ball



rugby, soccer, and martial arts) compared to those who do not have these mechanical characteristics, such as swimming, rowing, and cycling. Furthermore there are evidences that high level of physical activity during youth, as seen in female athletes, seems to have a beneficial effect on bone mass and helps to prevent bone loss due to aging.

In clinical practice, however, the prescription of exercise in the elderly and osteoporotic patient must always be preceded by a careful evaluation: indeed, it is essential to define the type, intensity, and duration of a proposed program. The decision is based on the subject's muscle strength, range of motion, balance, gait, cardiopulmonary function, comorbidities, bone density, and history of previous fractures, as well as the risk of falling. In fact, the most intense exercises, such as high impact activities, that are effective in increasing bone mass in young subjects may not be indicated for some elderly osteoporotic subjects. The progression of the exercise must always be respected, and, in patients with severe osteoporosis, the activities involving the flexion or rotation of the trunk must be avoided.



Weight-Bearing Aerobic Exercise

One of the most common forms of aerobic training is walking, an exercise very well accepted by the older people, because it is harmless, self-managed, and easily practicable. The effects of walking on BMD have been widely considered, although the results are not always consistent in the various studies. The meta-analyses showed the absence of significant effects on the lumbar spine or on the femoral neck attempted by the only walking. Likewise, from the studies analysed by Gomez Cabello et al, there is no evidence of a close correlation between BMD increasing and gait exercise. However, the effectiveness of walking in maintaining the level of BMD and in preventing its loss is already an excellent result of this simple type of exercise.

Furthermore, it is important to consider some parameters that can influence the effects of walking, such as walking speedily/slowly or strongly/weekly. Actually, there is evidence that an intervention of more than 6 months in duration can provide significant and positive effects on femoral neck BMD in peri- and postmenopausal women.

Some studies show how a brisk walking or jogging can have positive effects on hip and column BMD in women of menopausal age. Certainly, some low-impact activities, such as jogging combined with stair climbing and walking, favor minor loss of BMD in both the hip and the spine in menopausal women. Hence, walking/jogging must reach a sufficient high level of mechanical stress determining an important ground reaction force able to stimulate bone mass.

In comparing different types of physical exercises with controls, Howe found a significant effect in BMD for bipodalic or monopodalic static exercises and on spine and wrist for dynamic low-impact exercises (including walking and Tai Chi).

Regarding Tai Chi, the issue is in increasing debate; recent literature suggests a positive effect on attenuating BMD loss at the lumbar spine and the proximal femoral neck and on biomarkers of bone metabolism. However, in order to be effective, this activity has to last 12 months as minimum.

In summary:

Walking, as an isolated intervention, is not able to modify the loss of BMD. However, in the context of a health maintenance program in general it is advisable to walk for at least 30 minutes a day.

Aerobic training and in particular the path with high intensity and speed, interspersed with jogging, climbing scales, and stepping, is able to limit the reduction of BMD.

Strength and Resistance Exercises

Strength and resistance training are the most studied techniques to increase bone mass in the elderly. The rationale of these exercises lies in the mechanical stimulus indirectly produced on the bone. Like weight-bearing exercises, the strength exercise determines a joint reaction force and muscle strengthening, producing an important clinical benefit on the BMD, in the lumbar spine and, to a greater extent, in the femoral neck. This type of activity is also defined as “nonimpacting” and can be carried out with loading (lifting weights) or without loading (swimming, cycling).

Studies have examined the effect of strengthening the muscles of the upper limb and lower limb, rather than specific groups such as iliopsoas and spinal extensors. From the evidence gathered by Zehnacker et al. the effectiveness of strength training in the hip and spine sites is related to the intensity of the training; the exercise requires high loads (70-90% of a maximum repetition) for 8-10 repetitions of 2-3 sets performed at least for 1 year, 3 times a week for 45-70 minutes per session.

In particular some types of exercise would be able to increase bone mineral density:

- 1) weighted squats, hack squats, leg press, hip extension, hip adduction, knee extension, and hamstring curls;
- 2) stair-climbing/step boxes with weighted vests, power cleans with weighted vests, and beverage boxes;
- 3) military press, latissimus pull down, seated rowing, and rotary torso;
- 4) back extension exercises with weighted backpack, leg press, bench press, trunk extension, elbow flexion, wrist curl, reverse wrist curl, triceps extension, and forearm pronation and supination.

In relation to the hip, the exercise is effective on the greater trochanter if it involves the buttocks, on the lesser trochanter if it involves the iliopsoas, and on the Ward's triangle if it involves the adductors and the hip extensors, according to the studies of Kerr et al.. Here, the authors concluded that there are several possible explanations for the different effectiveness of site-specific exercises: various muscle insertions, different weight or type of contraction, and duration and nature of the exercise.

Similarly, Sinaki et al. have shown that the strength of the back muscles in osteoporotic women is significantly reduced compared to healthy subjects; therefore, the strengthening of these muscles can reduce the risk of vertebral fractures with simple programs of antigravity extension in the prone position. After two years of exercise, there was a significant reduction in the loss of BMD in the subjects being treated. This significant difference, compared to controls, was maintained eight years after, despite the decrement of both BMD and muscle strength.

In opposite opinion are Bemben et al. who investigated the dose-response effects of resistance training on BMD in elderly women and concluded that the gain in BMD at the proximal femur and lumbar spine is independent of intensity and frequency of isotonic exercise (with Cybex) of the upper and lower limbs. In particular, there was no difference between men and women at the femur level, while in women the effect is greater at the spine. In fact, it seems that the bone in menopausal age can be significantly increased by a



regime of strengthening exercises with “high-load low repetitions” but not by a regime of resistance exercises with “low-load high repetitions” . The peak load exerted seems to be therefore more important than the number of repetitions on the increase in bone mass in menopausal women . Other considerations that must be taken into account are that women require a greater intensity of exercise to obtain certain results on bone mass. Hence, it is always important to perform a balanced agonists and antagonists training taking into account that the speed of execution during the movements is pertinent in obtaining greater osteogenic stimulation. The effectiveness of progressive resistance training is confirmed also in the review of Cheung and Giangregoriowho considered this exercise the best one in postmenopausal women to improve both spine and hip BMD. This would not be the case of older adults, in which physical activity and exercise only have minimal effects on BMD, while strength training should be suggested. However, in clinical practice, in osteoporotic individuals with high risk of vertebral fracture, the use of resistance machines should be well thought out, since this technique often requires forward bending and twisting of the trunk to perform the exercise or to adjust the equipment and to ensure the proper setting. They can be utilized only if is used and adjusted with the proper form.



Strength training determines an increase in specific site bone density, in particular at the neck of the femur and at the lumbar spine, which is maintained in the short to medium term. At least 3 sessions a week for a year are recommended.

Progressive resistance training for the lower limbs is the most effective type of exercise intervention on bone mineral density (BMD) for the neck of femur.

Multicomponent Training

The multicomponent training consists of a combination of different exercises (aerobics, strengthening, progressive resistance, balancing, and dancing) and it is aimed at increasing or preserving bone mass. This implies that the same interventions are provided to all people, differently from multifactorial training, customized on the individual characteristics.

The association of several types of exercise is advised to the patients affected by osteoporosis with the goal to counter the reduction of bone mass. The combination of multiple types of exercise would have a significant effect on BMD at three sites: femoral neck and greater trochanter, but the maximum benefit would be achieved at the spine level.

However, diverse methodological and reporting discrepancies with respect to the proposed mix of exercises, the characteristics of patients with or without fractures, and the outcome measures seem relevant in determining the result of the exercise program. The revision of Gomez-Cabello et al. reports substantially two studies that demonstrate a significant improvement in BMD at the level of the lumbar spine, the neck of the femur, and the greater trochanter, following programs including muscle strengthening and impact exercises. The meta-analysis conducted by Nikander et al. reports in postmenopausal women different results about the effects of the exercise. While resistance training seems to have a good effect on lumbar BMD, the association of this type of exercise with so-called “low-moderate” impact exercises such as jogging, walking, and stair climbing is much more effective in preserving BMD at both lumbar and femoral level.

It is interesting to note from this review how the most challenging high impact exercise programs, such as jumping, are only effective when they are associated with other low-impact exercises. Bolan et al. report in their systematic review a positive osteogenic effect of resistance training alone or associated with high impact weight-bearing activities and recall that the intensity and increment of the type of load are two fundamental elements of exercise to avoid adaptation phenomena and produce an improvement on bone mass rather than just decreasing the loss.

Giangregorio et al. stressed the importance for individuals with osteoporosis and osteoporotic vertebral fracture to engage in a multicomponent exercise program with resistance training combined with balance training. In particular, it is stated that such individuals should not engage in aerobic training to the exclusion of resistance or balance training.

Also, in the review of studies analyzed by Marquez et al. the combination of non-high-impact weight-bearing exercises for muscle strengthening, resistance, aerobic, and balance exercises determined an increase in BMD at the lumbar spine and femoral neck in elderly subjects. According to this group, a multicomponent exercise program with moderate-high impact (marching on the spot, stepping at 120/125 b/m, on a bench of 15 cm, and heel drops on a rigid surface) was able to determine an increase in BMD in the femoral neck in a population of elderly women who had never performed exercise programs before.



In summary:

Combined exercise and group exercise programs, including weight-bearing activities, balance training, jogging, low-impact loading, high magnitude exercise, muscle strength, and simulated functional tasks, are advised to determine BMD increasing or at least to preserve it. However the combination of exercise should be tailored on the patient's clinical features. No agreement exists on the best protocol in terms of duration, frequency, and the type of exercises to be combined. The most relevant effect was detected at the spine.

Training with Vibrating Platforms

The vibration of the entire body is a physiotherapy intervention based on the use of a high frequency mechanical stimulus generated by a vibrating platform (Whole Body Vibration or WBV) that activates the mechanoreceptors of the bone favoring osteogenesis. The results of the studies included in two systematic reviews conclude that the treatment with a WBV seems to be more effective than simple walking and of similar efficacy to strength training to improve bone mass at specific sites (femoral neck and spine) in postmenopausal women.

To obtain these results, Dionello et al. report an average duration of the training from 2 to 22 months with one or two weekly sessions lasting from 4 to 20 minutes, with vertical or horizontal vibratory energy, at a variable frequency from 12 Hz to 90 Hz with amplitude from 0.7 mm to 12 mm. The positive effect of WBV in improving BMD in different sites is supported also by other reviews and confirmed by Oliveira et al. concluding that, despite WBV presenting potential to act as a coadjutant in the prevention or treatment of osteoporosis, especially for BMD of the lumbar spine, the ideal intervention is not yet clear.

Fratini et al. also claim that whole body vibration produces significant BMD improvements on the hip and spine when compared to no intervention, while treatment associated with exercise training resulted in negligible outcomes when compared to exercise training or to placebo. The authors specify that the most osteogenic effect is obtained with side-alternating platforms, due to the similarity of the stimulus with gait, mechanical

oscillations of magnitude higher than 3 g, and/or frequency lower than 25 Hz, while exercising on the platform does not provide further improvement of BMD. Thus, it is better if the subject during the treatment assumes static postures, such as full-standing or hack squat. However, many factors (e.g., amplitude, frequency, and subject posture) affect the capacity of the vibrations to propagate to the target site; the adequate level of stimulation required to produce these effects has not yet been defined.

Conversely, a previous systematic review showed that while the use of vibration platforms can improve muscle strength in the lower limbs of elderly patients, it does not seem to induce significant changes in bone mineral density in women. Similarly, while the analysis performed by Cheung and Giangregorio in 5 systematic reviews shows only a modest clinical improvement of BMD at the hip in postmenopausal women, the review of Jepsen et al. reports only a reduction in fall rate, but not in BMD.

In summary:

Training with vibrating platforms is reported to have effect on enhancing muscle strength, improving balance, and reducing the risk of fall in osteoporotic patients, while controversial findings on improvement of BMD in different sites were reported.

Conclusions

Although several exercise recommendations for individuals with osteoporosis have been proposed, reviews are often inconclusive, for the methodological variability emerging from the studies.

However, results from the Cochrane review suggest a relatively small, statistically significant, but possibly important effect of exercise on bone density in postmenopausal women compared with control groups. The exercise types most effective on BMD for the neck of femur, which should be considered in clinical practice, appear to be the progressive resistance strength training for the lower limbs. The most effective intervention for BMD at the spine has been suggested to be the multicomponent training exercise programme. Weight-bearing aerobic exercise and training with vibrating platforms may have also an impact in improving BMD. These evidences are relevant not only because they support the possibility to increase BMD in postmenopausal women, but also because they confirm the possibility to prevent further bone loss in osteoporotic patients, thus limiting the risk of fractures.

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INFLUENCE OF SELECTED ANTHROPOMETRIC, PHYSIOLOGICAL AND MOTOR FITNESS VARIABLES ON SWIMMING EFFICIENCY AMONG JUNIOR SWIMMERS

Kavya.R

Research Scholar, Karnataka State Akkamahadevi Women's University
Vijayapura, Physical Education Director
The National Institute of Engineering, Mysore

Dr.Kiran.G.N

Assistant Professor & Research Guide
Dept of Studies in Physical Education & Sports Science
Karnataka State Akkamahadevi Women's University, Vijayapura

ABSTRACT

In youth swimming, researchers are interested in understanding how anthropometry and parameters related to swimming technique (biomechanics, energetics, and efficiency) influence the performance. There is not any review in the literature that consolidates the body of knowledge of this topic. The objective of this study was to review systematically the current body of work on the influence of determinant factors related to swimming technique (biomechanics, energetics, and efficiency) and anthropometry in the young performance of swimmers.

Keywords: talent, identification, development, swimming, determinants, sports career

Introduction

One of the major topics of interest in sports science is the identification of talented young athletes. This process is based on talent identification and development (TID) programs that aim to identify young athletes with potential for success in adult/elite sport. Detecting talent at an early stage is considered a key factor in increasing a chance of a country of achieving success in sports. Competitive swimming is one of the three main modern Olympic sports. In competitive swimming, Olympic, and World records are broken on a regular basis, challenging the limits of athletes. Practitioners and researchers are eager to predict the next top-ranked swimmer who will contribute to the superiority of their country at major international competitions.

Talent identification and development programs follow standard steps:

1. Identifying the athletes with the potential to deliver the best performances in adulthood and determining the variables responsible for such performances;
2. Understanding the development and changes in performance and its determinant factors, according to a training program, and;
3. Following up in order to allow understanding the variation of such variables and its relationship with performance over a given time. To get deeper insights into how determinant factors of swimmers change over time, their interaction and their effect on performance, researchers, and coaches should focus on a long-term approach. Long-term athlete development (LTAD) programs focus on providing young athletes with fundamental motor skills in tandem to their maturation stage.



Swimming speed depends on anthropometric characteristics, biomechanics factors, physical fitness, physiological components, and genetics. Therefore, this study aimed to identify which anthropometric characteristics influence swimming speed in adolescent competitive swimmers. Thirty-eight male swimmers (aged 16.94 ± 0.8 years; body height: 178.3 ± 5.4 cm; body weight 67.7 ± 9.6 kg) and thirty-five female swimmers (aged 17.12 ± 0.7 years; body height: 175.1 ± 6.6 cm; body weight 59.9 ± 7.1 kg) participated in the study. All swimmers have competed at the national level in Serbia for at least three years and have at least five years of training experience. Fifteen variables were measured: arm length, hand length, leg length, foot length, seat height, wrist diameter, ankle joint diameter, elbow diameter, chest circumference, triceps skinfold, forearm skinfold, abdominal skinfold, subscapular skinfold, thigh skinfold, calf skinfold. The measurements were taken by the Martin anthropometer, Omron digital scale BF511, and John Bull caliper. Swimming speed was measured during 50-m and 100-m front crawl swimming. Multiple regression analysis revealed that arm length, wrist diameter, and chest circumference, all together, accounted for 77% of 100-m front crawl swimming speed in male swimmers, while abdominal skinfold accounted for 90% of 100-m front crawl swimming speed in female swimmers. Results showed that anthropometric characteristics could not account for adolescent swimmers' 50-m front crawl swimming speed. However, anthropometric characteristics can influence the result in swimming (100-m front crawl swimming speed) in adolescents and thus should be considered a diagnostic tool in selecting young swimmers.



The present study indicates that anthropometric variables (63.8%) significantly explained the variance in 100 m freestyle swimming performance in early adolescent swimmers. Moreover, after adjusting for physical maturation, swimmers classed as faster had lower sum of skinfolds and better functional movement patterns than swimmers classed as slower. While gender differences Certain anthropometric characteristics must be taken into consideration in analysing sprint swimming performance, including body height, arm span and lean body mass (Jürimäe et al., 2007; Strzala and Tyka, 2009). These somatic attributes are largely inherited and determine swimming technique to a high degree. However, data on the relationship among anthropometric properties, physical capacity and sprint swimming performance in adolescent swimmers are scarce. Since metabolic capacities as well as skill acquisition, are affected by growth and development (Malina, 1994), it can be suggested that factors predicting swimming performance may vary for young swimmers and may be different compared to adults. In fact, Geladas et al., 2005 found that total upper extremity length, leg power and handgrip strength could be used as predictors of 100-m front crawl performance in 12-14 year-old boys. A multivariate analysis of swimming performance in a large sample ($n = 66$) of male swimmers (11-12 years) of high national level found that predictive variables pertaining to the anthropometric (sitting height), physiological (aerobic speed and endurance) and technical (swimming index) domains explained 82.4% of competitive performance (Saavedra et al., 2010). Overall, it appears that somatic traits play an important role in swimming performance during the years of growth.



Energy cost is a key parameter to evaluate performance in swimming and it has been described as a predictor of performance in human locomotion, in both terrestrial and aquatic

environments (di Prampero, 1986; Zamparo et al., 2005b). Traditionally, the energy cost of swimming (C_s) is defined as the total energy expenditure required for displacing the body over a given unit of distance (di Prampero et al., 1986; Pendergast et al., 2003). Kjendlie et al., 2004a reported significantly lower energy cost in children (12-year-old boys) than in adults (21-year-old males) at comparable swimming velocity, thus confirming the results obtained by Ratel and Poujade, 2009 in a group of 12-13 year-old boys and 18-22 year old men. C_s increases as a function of velocity (Capelli et al., 1998; Poujade et al., 2002) and has usually been assessed from the ratio of oxygen uptake ($\dot{V}O_2$) to the corresponding velocity (v_s) in swimmers (Kjendlie et al., 2004a). When calculating C_s based in the $\dot{V}O_2$ and velocity, there are two ways to computing that. Some researchers use $\dot{V}O_2-v^3$ to illustrate C_s with linear function (Kjendlie et al., 2004a, 2004b), but the common use is $\dot{V}O_2-v$ (curvilinear function) (Barbosa et al., 2008; Capelli et al., 1998; Poujade et al., 2002; Zamparo et al., 2005a). However, it is also important that anaerobic metabolism is also taken into account (Barbosa et al., 2005b, Barbosa et al., 2006), since its relatively higher contribution during 100-m distance.

The recent development of improved instrumentation and technology in breath-by-breath analysis has resulted in new approaches to study $\dot{V}O_2$ also in aquatic environments. The last generation of miniaturized breath-by-breath metabolic carts can be used in combination of newly developed snorkels to directly measure cardiorespiratory parameters during swimming with acceptable accuracy and reliability (Keskinen et al., 2003; Rodriguez et al., 2008). This instrumentation has also been used to characterize $\dot{V}O_2$ kinetics during free swimming (Barbosa et al., 2006; Rodriguez et al., 2003). However, no studies using breath-by-breath gas analysis have been conducted to determine oxygen consumption and C_s during sprint swimming in adolescent swimmers.

The understanding of the behavior of stroke mechanics and its relationship to v_s is one of the major points of interest in biomechanical research in swimming (Keskinen and Komi, 1993; Kjendlie et al., 2006; Toussaint et al., 2006). Increases or decreases in v_s are due to a combined increase or decrease in stroke rate (SR) and stroke length (SL) (Keskinen and Komi, 1993; Toussaint et al., 2006). Stroke mechanics is considered to reach an optimal balance between SR and SL when v_s values are at their highest level with a relatively low C_s (Barbosa et al., 2008). It has been shown that increases in maximal v_s from the age of about 11 are related to increased SL, while SR at maximal v_s does not increase with age (Kjendlie et al., 2004b). According to the literature, at a given v_s , C_s significantly increases with increasing SR (Barbosa et al., 2005a; Zamparo et al., 2005b). Less consistent is the decrease of C_s with increasing SL (Barbosa et al., 2005a; Costill et al., 1985; Pendergast et al., 2003; Zamparo et al., 2005b). High stroke index (SI) values are strongly associated with low C_s (Costill et al., 1985). In this sense, and following the referred authors, SI can also be used as an overall estimation of swimming efficiency.

To our knowledge, no studies have investigated the influence of different anthropometric, physiologic and technical parameters together to determine sprint swimming performance in young swimmers. There is also lack of studies using breath-by-breath technology, and thus being able to characterize oxygen consumption, in during swimming in adolescent swimmers. Accordingly, the purpose of this study was to investigate the contribution of different anthropometrical, physiological and biomechanical parameters to sprint swimming performance in adolescent boys. We hypothesis that sprint swimming performance at that young age could be predicted from a relatively low number of selected variables pertaining to these three testing domains. Understanding the physical and anthropometric factors that underpin performance in the sport of swimming is important in



relation to talent development and targeting training programs effectively. The use of anthropometry and physical testing is prevalent in many talent identification and talent development programmes including those of the Federation Internationale De Natation (FINA) . As such examining the impact of anthropometric variables on swimming performance in pediatric swimmers is of interest to scientists and coaches alike.



A body of literature has documented how anthropometric and other variables might predict pediatric swimming performance. Anthropometry alone, however, may not be best suited for monitoring pediatric swimmers. For example, Geladas *et al.* reported that 100 m freestyle swimming performance was best predicted by a combination of anthropometric and physical tests ($r = -0.22$ to -0.31) in a sample of 263, 12–14 year old swimmers. Thus, there is a need to better understand how these factors might influence swimming performance in adolescent swimmers.

In recent years there has been an increase in the use of pre-participation movement screens as a means to quantify functional movement as well as predicting injury risk and sports performance. The Functional Movement Screen (FMS) , is one such measure which is predictive of injury risk and has been shown to improve following online video-based compared to fully supervised resistance exercise in adolescent basketball athletes. Recent work by Paszkewicz *et al.* has also reported that the FMS can discriminate between levels of pubescence and detect alterations during the pubertal growth cycle in children and adolescents aged 8–14 years old. The FMS comprises seven movement tests that employ a variety of positions and movements closely related to normal growth and development. It is conceptualised that fundamental movements, such as those tested by the FMS, operate as the basis of more complex movement patterns used in common daily activities. As such the use of the FMS offers a practical way by which to evaluate the functional movement patterns that underpin all aspects of human movement. Recent longitudinal research with 121 track and field athletes has also supported the efficacy of this method. Chapman *et al.* reported that athletes who scores a FMS composite score of 14 or higher had a significantly greater performance improvement in their disciplines over the following year compared to athletes who scored less than 14 on the FMS. Conversely, data presented by Parchman and McBride reported no significant association between FMS scores, golf club head speed, and various fitness tests in 25 adult golfers. Other research with a non-athletic child population has also reported that FMS scores were significantly related to body mass index, with higher BMI being associated with poorer FMS performance. Despite this data, few studies have examined how these functional movement patterns develop in adolescents generally, no studies to date have examined if, and how FMS performance might be associated with anthropometric factors and performance in adolescent athletes.

The aim of this study was to examine the association between anthropometric variables, functional movement screen scores and 100 m freestyle swimming performance in trained adolescent swimmers. We hypothesized that both anthropometric variables and functional movement screen scores would be significant predictors of 100 m freestyle swimming performance.



The purpose of this study was to analyze the relationships between 100-m front crawl swimming performance and relevant biomechanical, anthropometrical and physiological parameters in male adolescent swimmers. Twenty five male swimmers (mean \pm

SD: age 15.2 ± 1.9 years; height 1.76 ± 0.09 m; body mass 63.3 ± 10.9 kg) performed an all-out 100-m front crawl swimming test in a 25-m pool. A respiratory snorkel and valve system with low hydrodynamic resistance was used to collect expired air. Oxygen uptake was measured breath-by-breath by a portable metabolic cart. Swimming velocity, stroke rate (SR), stroke length and stroke index (SI) were assessed during the test by time video analysis. Blood samples for lactate measurement were taken from the fingertip pre exercise and at the third and fifth minute of recovery to estimate net blood lactate accumulation (ΔLa). The energy cost of swimming was estimated from oxygen uptake and blood lactate energy equivalent values. Basic anthropometry included body height, body mass and arm span. Body composition parameters were measured using dual-energy X-ray absorptiometry (DXA). Results indicate that biomechanical factors (90.3%) explained most of 100-m front crawl swimming performance variability in these adolescent male swimmers, followed by anthropometrical (45.8%) and physiological (45.2%) parameters. SI was the best single predictor of performance, while arm span and ΔLa were the best anthropometrical and physiological indicators, respectively. SI and SR alone explained 92.6% of the variance in competitive performance. These results confirm the importance of considering specific stroke technical parameters when predicting success in young swimmers.

Key points

- This study investigated the influence of different anthropometrical, physiological and biomechanical parameters on 100-m swimming performance in adolescent boys.
- Biomechanical factors contributed most to sprint swimming performance in these young male swimmers (90.3% of variability in performance), followed by anthropometrical (45.8%) and physiological (45.2%) parameters.
- Two selected variables (stroke index and stroke rate) explained 92.6% of the variance in competitive performance in these adolescent swimmers.

Certain anthropometric characteristics must be taken into consideration in analysing sprint swimming performance, including body height, arm span and lean body mass (Jürimäe et al., 2007; Strzala and Tyka, 2009). These somatic attributes are largely inherited and determine swimming technique to a high degree. However, data on the relationship among anthropometric properties, physical capacity and sprint swimming performance in adolescent swimmers are scarce. Since metabolic capacities as well as skill acquisition, are affected by growth and development (Malina, 1994), it can be suggested that factors predicting swimming performance may vary for young swimmers and may be different compared to adults. In fact, Geladas et al., 2005 found that total upper extremity length, leg power and handgrip strength could be used as predictors of 100-m front crawl performance in 12-14 year-old boys. A multivariate analysis of swimming performance in a large sample ($n = 66$) of male swimmers (11-12 years) of high national level found that predictive variables pertaining to the anthropometric (sitting height), physiological (aerobic speed and endurance) and technical (swimming index) domains explained 82.4% of competitive performance (Saavedra et al., 2010). Overall, it appears that somatic traits play an important role in swimming performance during the years of growth.



The percentage of fat, body mass index, and waist circumference are shown as the variables in which more people presented unhealthy parameters. Age and sex are factors that influence the behavior of anthropometric, physiological, and physical fitness variables. At a higher age, there is a higher percentage of body fat, greater waist circumference, and a higher BMI in both sexes. Women show a greater accumulation of body fat, while men have higher waist circumference values when compared between sexes. The high values of these

indicators are associated with the risk of developing metabolic and cardiovascular effects. Men have better values in muscular endurance than women. Finally, it is necessary to promote healthy lifestyles, as well as the regular practice of physical activity, to impact and improve the quality of life of adult populations. For this, the physical exercise programs in the aquatic environment are positioned as an option that provides the opportunity to promote physical activity in society.

Limitations

One of the limitations of this study was not having obtained the level of physical activity performed by the participants who were evaluated before entering the project; this situation limited the possibility of knowing if the participants were sedentary or physically active, that could have been a factor that would influence the results presented. Another limitation of this study was not having had follow-up data after a time of having started swimming to determine the effect of swimming on the evaluated indicators.

Conclusion

Performance of young swimmers is characterized by a multifactorial, holistic, and dynamic phenomenon relying on several features from different scientific domains. Better performance has always been related to better swimming techniques. Concurrently, anthropometry (e.g., higher AS, H, and upper limbs) also plays an important role in performance. Swimmers with larger body dimensions are the fastest. This suggests that anthropometry (i.e., nature) and training (i.e., nurture) play key roles. The contribution of energetics and efficiency becomes more important as the swimmer gets older or whenever the swimming event becomes longer. Performance enhancement of young swimmers should rely on LTAD programs, always taking into consideration the growth spurt and the external training load of the swimmer. Coaches are advised to monitor the rate of growth of their athletes, since this can affect their performance. They should put more focus on improving swimming technique and less on the external training load.

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LEGAL IMPLICATIONS FOR PROTECTION WOMEN IN SPORT -A REGULATORY RIDDLES

Lohith.L

*College Director Physical Education
Govt First Grade College, Bilikere, Mysore (D)*

ABSTRACT

This contribution deals with the legal aspects and acts of violence against a group of women in sport. Discussions about violence in society and thus on violence in sport are often associated with people's thoughts about the moral state of society as a whole. Violence against women is one of the most widespread violations of human dignity. It represents a violation of human rights, namely the right to life, the right to safety, the right to dignity, the right to physical and mental integrity. It is desirable to raise awareness about the prevention of sexual violence at all levels. We have to focus on preventive precautions to support projects to fight violence and intolerance in sport, to develop codes of conduct that determine the relationship between athletes, relations between men and women, as well as relations between coaches and officials, relations between parents and coaches. The Slovak Republic is only at the beginning of the way of creating the relationship between law and sport. Therefore, it is necessary to increase the legal awareness of sport as a tool for regulation in sport activities.

Keywords: Violence, Abuse, criminal offences, sexual harassment, Legal awareness

Introduction

Recent years have witnessed increasing attention being afforded to the promotion of athletes' human rights, and this has given rise to something of a regulatory riddle when determining how to guarantee those rights in the context of sport. This paper investigates the regulatory gaps in the protection of athlete's gender rights in sport, offering solutions to tighten those gaps and remedy the current shortfalls. Modern society is undergoing significant changes in the ways in which sex and gender are perceived, discussed, recognised and organised. The topic has been catapulted to the forefront of contemporary policy debates, particularly relating to the recognition of transgender and intersex individuals. This evolution has created tensions with the traditional binary structures of sport, which have been strictly organised into male and female categories. The inclusion of non-conforming individuals such as intersex and transgender athletes, has triggered a global debate mostly framed around science and athletic advantage, but there has been significantly less discussion in the context of human rights and law. As athletes are increasingly finding their own voice and asserting their rights, the question arises how to balance the interests of sport with the protection of human rights of the athlete.

Regulating human rights abuses in sport is being widely examined in the literature.^{Footnote 1} This paper builds on these understandings by offering an original insight into the regulatory gaps specifically in the protection of athletes' gender rights. Particular attention is given to two Court of Arbitration for Sport (CAS) arbitral awards, which have firmly placed sport gender rules in the spotlight. The cases brought by Dutee Chand and Caster Semenya are illustrative of how the conflict between biology, science, law, sport and identity creates a regulatory riddle for any court, sports arbitration panel or governing body tasked with resolving this issue. Whilst a strong framework of human rights provisions exists to protect individuals from gender discrimination, the intricate relationship between sport and the law has left these athletes in a vulnerable position, with little legal accountability of sport bodies and limited access to a remedy where gender rights may have been breached. It is thus timely to shift the legal lens of this inquiry and focus on the

person, rather than on the institution of sport in order to effectively enforce the protection of human rights in sport.

Having identified the inherent tensions between the rights of the athlete and the autonomous powerful sports regulatory system, this paper will draw upon the existing proposals for rectifying the regulatory gaps, and make original recommendations such as the establishment of the International Anti-Discrimination in Sport Unit (IADSU). This body would be specifically designed to eradicate discrimination and enforce broader human rights in sport. Additional proposals include the enactment of an anti-discrimination in sport charter which would bind sport to human rights, the creation of an Athlete Advice Service to support athletes, and an accessible international tribunal for the resolution of human rights disputes in sport that would connect the existing sport system with the legal framework. The paper and proposals emphasise but are not confined to anti-discrimination alone; other inalienable rights are also at stake here (mentioned below) and require protection in the same way.

“The right to be protected from sexual harassment and sexual assault is, therefore, guaranteed by the Constitution, and is one of the pillars on which the very construct of gender justice stands”

✚ **Justice Verma Committee**

Gender based discrimination in sports can take the form of sheer male superiority within patriarchal family or societal structures where sports is considered as exclusively male domain. It can also arise from myths surrounding the adverse effects of sports on women’s reproductive health and/or beauty to undermining their sporting career ambitions, leading to limited support and opportunities for their careers. Also, women’s sports did not get adequate media coverage and lack sufficient spectator ship, contributing to further inequality. Furthermore, female athletes are vulnerable to sexual harassment within the sporting realm.

Inequality in facility access is a problem for female athletes as well. Former Indian cricketer Snehal Pradhan narrates: “For two years, I practised at a ground in Bandra where I was the only girl. After training the boys would change from their muddied whites into T-shirts and shorts for their journey home. They would do so in the open. There was no changing room there, so I just pulled a jumper over my sweat-soaked T-shirt, so that I wouldn’t get sweat and grime on my co-travellers in the bus or train. The jumper made me sweat even more. Later, the ground staff gave me access to a locked bathroom to change. It was small, unlit dingy and sometimes stank. But it had a lock, and allowed me to change out of my whites into a clean T-shirt. It was better than the jumper.”

The Constitution of India guarantees the Right to Equality under Article 14 to 18 and Article 15 expressly prohibits gender discrimination in any situation including access to “places of public entertainment” which can be interpreted to imply gender equality in sporting facilities as well. Under Articles 226 and 32 citizens are free to approach High Court or even Supreme Court.

The cognizance of gender equality and sexual harassment in sports has taken by The Ministry of Youth Affairs and Sports.



- Rule 9.3 condition xi of National Sports Development Code, 2011(which is not a statute but a delegated legislation of the Ministry of Youth Affairs and Sports, but its binding nature is judiciary upheld) mandates that national sporting organisations including BCCI to regularly hold tournaments for both men and women for continuance of status as recognised organisations and to receive financial assistance from the government.
- Rule 10.8 states that if funding is provided to national sports federations by the government then an equal amount of money should be allotted for the tournaments for both the genders.
- Rule 1.6 mentions that the government has issued the guidelines to address sexual harassment of women in sports.

The landmark case of Vishakha v. State of Rajasthan which deals with sexual harassment at workplace is also indeed pertinent in this context. Now, the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 has come into being which codifies the guidelines given by the Supreme Court in the said case. The primary objective of this act is the protection of women, prevention and redressal of the complaints of sexual harassment and to protect women at different types of workplaces. Under Articles 14 and 15(3) sexual harassment has been termed as violation of basic fundamental rights of women.

Clause iv and v of this act states that sporting spaces are also workplace as the term “Workplace”. It is defined broadly and includes “any sports institute, stadium, sports complex or competition or games venue, whether residential or not used for training, sports or other activities relating thereto”, and “any place visited by the employee arising out of or during the course of employment including transportation provided by the employer for undertaking such a journey”.



The draft of the National Sports Development Bill of 10 July 2013, deserves our attention. In its preamble the elimination of “sexual harassment of women in sports” is mentioned.

Section 15 of this draft exclusively deals with sexual harassment which is quoted verbatim hereunder:

1. It shall be the duty of every National Sports Federation, the National Olympic Committee, the Sports Authority of India and other sports bodies to prevent sexual harassment in sports.
2. For the purpose of sub-section (1), all National Sports Federations, the National Olympic Committee, the Sports Authority of India and other sports bodies shall adopt measures, namely:
 - a) Notify, publish and circulate, guidelines for the safety and well-being of all involved in Sports;
 - b) Establish appropriate systems to ensure healthy relationship between coach and athletes;
 - c) Provide for sufficient number of women members in the coaching and support staff for every woman athlete or team of women athletes;
 - d) Provide appropriate conditions for women in respect of work, leisure, health and hygiene;
 - e) Provide reasonable assistance to the adversely affected athlete, where sexual harassment occurs as a result of an act or omission by any third party and initiate appropriate legal action against such third party;

- f) To set up a complaints committee for redressed of the complaints in a time bound manner as to comply with the guidelines laid down by the Supreme Court or the mandate of any other enactment. Provided that, to prevent the possibility of any undue pressure or influence from within the organization, the complaints committee shall have an independent member either from a nongovernmental organization or other body/person, as the case may be, who is familiar with the issues of sexual harassment.
3. Without prejudice to the foregoing provisions, the Central Government may specify certain other acts, which may constitute sexual harassment in sports.
4. The Central Government may make rules prohibiting sexual harassment in sports and provide for appropriate penalties.”

The National Sports Development Bill 2013 has asked for better measures of security towards the woman athletes of the country.

This can be done by

- a) Prescribe necessary rules
- b) Provide sufficient members of women coaching staff
- c) Appropriate sporting conditions for women and girls
- d) Setup complaint mechanism
- e) Be woman centric and also someone from NGO so that there is no pressure from Association.
- f) Provide appropriate penalties.”



According to Section 26, there shall be equal representation of male and female athletes on the National Olympic Committee, and at least 10% of the members of the National Olympic Committee and National Sports Federations shall be women.

Since gender-related issues that might otherwise not be classified as “sexual harassment” have been covered by Section 15(2)(d), Section 25 creates an Appellate Sports Tribunal that has the authority to settle disputes between athletes and sports federations or the National Olympic Committee. These disputes can also involve issues pertaining to gender.

But here the only problem is this draft is still under consideration. Much could be done for the benefit of women in sports if it could be given legal recognition. Therefore, our law makers should adopt this bill and implement it for the future prospects of women athletes.

Position in international law

The importance of gender equality in all spheres of life, including sports, has been recognized by international law.

Some general provisions of the International Covenant on Economic, Social, and Cultural Rights (ICESCR), The International Covenant on Civil and Political Rights (ICCPR), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), and the Universal Declaration of Human Rights (UDHR) can be applied in the context of sports, while there are other provisions in international law which deal specifically with the problem of gender inequality in sports.



The CEDAW is without a doubt the most significant convention in the realm of women's rights. The States are required to provide "the same opportunities to participate actively in sports and physical education" to "men and women" according to Article 10(g) of this treaty, which deals with the topic at hand.

Article 1 of CEDAW defines "discrimination against women" as "any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field"[27], which would definitely include the realm of sports.

Since India is a signatory to the ICCPR, ICESCR, and CEDAW but not to the Optional Protocol to the CEDAW, complaints cannot be submitted to the CEDAW Committee for examination after all domestic legal remedies, including appeals to the Supreme Court, have been exhausted. However, Articles 51 and 253 of the Indian Constitution, in particular, substantially mandate obedience to international law.

Gender and human rights

The term 'sex' refers to the biological characteristics that are determined at birth. An interchangeable term is 'gender,' which derives from the ongoing social consequences for the individual. Whereas sex considers what is biologically male and female, gender considers what is masculine and feminine. Gender identity has become a fluid concept that exists on a wider spectrum than simply male or female, and whereas biological and cultural sources traditionally defined an individual, self-determination of gender identity is prevailing.

Trans female or trans male individuals exist across the spectrum; they experience an incongruence between their gender identity and their assigned sex (as opposed to cisgender individuals who do not experience a mismatch between their gender identity and assigned sex). Non-binary individuals are those who identify as neither male or female, or both. Intersex is a contested term but refers to individuals with differences of sexual development (DSD), who possess variations, to changing degrees, in their biological traits relating to sexual differentiation such as genetics, hormones or genitalia. A medicalised approach was historically taken to identities which derogated from the narrow construction of man and woman. The legal recognition and legal status of non-normative individuals is slowly shifting, but there is much debate around how best to ensure inclusion within legal recognition.

The regulation of gender in sport

The notions of sex and gender are intrinsically tied to sport because the essence of sporting activity is about testing our human differences by creating conditions which separate athletes according to these differences. Sport organises competition by dividing men and women as a way of protecting that essence and remains one of the few activities in modern society where sex segregation is accepted, required and controlled. The inclusion or exclusion of athletes may therefore be viewed as legitimate when in the pursuit of this aim, even when exclusion is incompatible with principles of human rights. The view is that men have significant physiological advantages over women, and this necessitates a division. Even within the female category, whilst women have been celebrated for their strength, power and stamina, at the same time they were viewed with suspicion because these are traits that still remain associated with masculinity and, in turn, advantage in sport. As the binary division is being challenged by the expansion of gender identity, a unique problem presents itself—how to determine sex for the purpose of sport and include individuals who do not meet the strict criteria to be eligible to compete in the binary female category, whilst at the same time protecting the rights of athletes and ensuring non-discrimination in sport.

Intersex Policies

In the pursuit of hormonally similar women, in 2006, the IAAF developed a Policy on Gender Verification. Officials or rival athletes could protest the eligibility of a gender ambiguous athlete, which may have resulted in mandatory treatment. This policy was harmful to the integrity, dignity and rights of an athlete, as evidenced by the degrading treatment of Indian female athlete, Santhi Soundarajin. The significant shortfalls in this policy were further exposed by the treatment of South African middle distance runner Caster Semenya in 2009, who was subjected to gender verification testing, restricted from competing for six months and instructed to undergo hormone treatment in the form of oral contraceptives in order to lower her testosterone levels.

In May 2011, the IAAF replaced their policy with the Hyperandrogenism Regulations (2011 Regulations). These focused on the degree of advantage enjoyed by female athletes with hyperandrogenism, a term used to describe females who produce excessive levels of androgen hormones. The female with the condition was eligible to compete in female competition provided that her androgen levels were below the male range (10nmol/L). Where an athlete did not meet the necessary criteria, they would be advised to undergo medical treatment to lower their testosterone levels or were prohibited from competition. This policy was justified on the premise that that hyperandrogenic women, with enhanced testosterone levels have a significant performance advantage over non-hyperandrogenic women. However, in the absence of evidence to support that assertion, the 2011 Regulations were suspended by the Court of Arbitration for Sport (CAS) in *Chand v AFI* and the IAAF for a period of two years (analysed below).

In September 2017, the IAAF submitted scientific evidence to establish a competitive advantage. The commissioned studies were heavily criticised in the field, and it was argued that the association between genetic traits or hormones with athletic performance was far more complicated and inconclusive. Making any determinations about eligibility based on limited evidence was a dangerous and discriminatory practice. Nevertheless, in March 2018, the Chand case was closed when the IAAF informed CAS that the 2011 Regulations were to be withdrawn and replaced by a new set of regulations which bypassed Chand since they did not apply to the 100m and 200m.

In 2018, the IAAF announced the implementation of the Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development (DSD)) (2018 Regulations). The 2018 Regulations required 'biologically male' athletes with 46 XY DSD, who have a natural testosterone level exceeding the revised threshold of 5nmol/l, which have a material androgenising effect, to reduce their level to within what they describe as the normal female range (below 5nmol/l), through hormone treatment. Athletes were required to maintain that reduced level for at least six months, as a condition of participation in eight restricted events between 400m and a mile. Athletes who did not meet the criteria and who did not wish to undergo treatment were invited to compete in non-restricted female events or male competitions.

The overall approach to intersex policies seems to be exclusionary and focused on the scientific basis of performance advantage, with little concern for the legal standards of human rights. The 2018 Regulations were challenged in *Semenya v IAAF* and have ignited a universal debate about gender and sport (analysed below).

➤ Trans athlete policies

The participation of trans athletes in sport is explored in depth elsewhere but the outcome of the Semenya case has significant implications for both intersex and trans athlete sport policies. Both policies have been approached in a similar way, often intertwined and lacking accurate distinction between the two identities. The first trans athlete policy was introduced by the IOC in 2004. The Stockholm Consensus on Sex Reassignment in Sport negatively influenced policy making in the field, detailing that in order to be eligible for participation post puberty, the athlete must have completed surgical

internal and external anatomical changes, legal recognition of their assigned sex and hormonal therapy for at least two years to reduce any gender-related advantages. The policy faced several criticisms around its medical requirements, lack of evidence, transphobic connotations, exclusionary nature and legal inconsistencies.

Acknowledging the significant deficiencies in the Stockholm Consensus, the IOC Medical Commission updated the policy in 2015. Footnote 28 Trans male athletes were eligible to compete in the male category without restriction. Trans female athletes were eligible to compete if they had declared that their gender identity is female for a minimum of four years; if their testosterone levels remained below 10nmol/L for at least twelve months prior to competition; and if they agreed to monitoring by testing. The policy moved away from the mandatory requirement for surgery and hormone treatment but what remained uncertain was the use of testosterone as a marker for athletic performance, and the 10nmol/L threshold as per the 2011 Hyperandrogenism Regulations. Plans to introduce new guidelines have been stalled because of the lack of scientific consensus.

The Semenya case initiated a momentous review of trans athlete eligibility rules by sports bodies. The IAAF re-aligned their trans athlete rules with the 2018 DSD Regulations and introduced the Eligibility Regulations for Transgender Athletes in 2019. The trans female athlete must provide a declaration that her gender identity is female; must demonstrate that testosterone levels are less than 5 nmol/L for at least twelve months and must maintain that for as long as she wishes to compete in the female category. Following a meeting on trans athlete eligibility, invited experts agreed that international federations should design sport-specific gender rules that are 'living documents' and that are consistent with the latest scientific knowledge. Sport bodies seem to be given some flexibility by the IAAF and the IOC in their use of testosterone as the basis for the policy. It was accepted that more research is needed on this issue and should be encouraged by sports federations. Consistent with this recommendation, World Rugby was one of the first international federations to convene a multidisciplinary working group in 2020, tasked with producing a rugby-specific trans athlete guideline.

Overall, as the progression of intersex policies remain contentious and subject to the outcome of the Semenya challenge, trans athlete policies are developing, with sports bodies attempting to formulate sport-specific rules for the participation of trans athletes. However, there remains a clear struggle to fairly balance the interests of sport with the rights of the athlete. The rules are centred around the scientific aspects of performance and advantage and fail to address adherence to human rights provisions in the construction and application of eligibility rules. For instance, despite World Rugby's progressive and open consultation process, in October 2020 they announced new guidelines that ban transwomen from competing in contact rugby at the international level. Footnote 34 Although the policing of sex and gender long existed as a legitimate condition of participation, there is a radical shift in the attitudes towards sex and gender identity with growing support for athletes who are being marginalised on the basis of their traits and who seek to challenge such treatment. Chand and Semenya are representative of that revolution, and they have altered the path of the regulation of sex and gender in sport by exposing the regulatory gaps in this field.

Challenges to the regulations

Chand and Semenya brought their cases before CAS, challenging the scientific basis of the regulations and their discriminatory impact. A close analysis of the cases is beneficial to this discussion because they reveal the significant scientific shortfalls in the regulations which impact upon the legal protection of athletes' gender rights. The cases also emphasise the incompatibility of the regulations with human rights standards, and an inability to deal with this in the current sport framework.

From a sport perspective, the crux of this issue is scientific—identifying how sex is determined in sport, whether testosterone is a primary marker for athletic performance,

whether the testosterone levels of non-conforming athletes impact on the body in the same way as men, whether those elevated testosterone levels give them an unfair advantage over 'normal' female athletes and whether that justifies their exclusion from the restricted female events. For CAS, the validity of the rules rests upon whether they are discriminatory, necessary, reasonable and proportionate. From a legal perspective however, these issues go beyond sport and instead concerns compliance with human rights and accountability of sports bodies.

➤ **Chand**

In 2014, Indian female 100m and 200m sprinter Dutee Chand was prohibited from international competition after hormone testing reportedly revealed that her body produced excessive natural levels of testosterone, which was unacceptable according to the IAAF 2011 Regulations (above). Chand refused medical treatment to help make her eligible and challenged her ban before CAS.

Chand argued that the 2011 Regulations unlawfully discriminated against some female athletes on the basis of a natural physical characteristic and sex, since no testosterone limit applied to male athletes in the same way. The IAAF accepted that the 2011 Regulations were prima facie discriminatory being that they were a sex-based eligibility rule. CAS agreed and reinforced that consistent, with legal standards, the responsibility fell on the IAAF to prove that the 2011 Regulations were nevertheless justified and necessary for the purpose of maintaining a level playing field.

Secondly, Chand submitted that the Regulations were factually flawed and unsupported by the 'best available science' ultimately about the impact of natural endogenous testosterone on the performance advantage of a hyperandrogenic female athlete. The IAAF strongly rejected these arguments, asserting that testosterone is a significant determinant of athletic performance and testosterone levels are the 'best discriminating factor' in explaining the performance differences between male and female athletes. With such contrasting interpretations of relevant scientific evidence and data, CAS concluded that there is a scientific basis for the use of testosterone as a marker for male and female difference in the Regulations and the IAAF could continue to rely on it. This matter continues to be the subject of scientific debate in the literature.

Thirdly, Chand submitted that the Regulations were disproportionate and instead resulted in a number of detrimental effects such as stigmatisation, damage to self-esteem, a lack of informed consent and/or guarantee of confidentiality, and concerns around the long-term effects of corrective medical procedures. The IAAF advanced that the Regulations were based upon existing recognised medical guidelines that protected the health of affected athletes. They insisted that the restriction was necessary and proportionate to maintain the level playing field and the categories of sport. CAS agreed that sport should be separated into male and female categories to maintain fairness and were therefore satisfied that the rules intended to pursue a legitimate objective. However, it concluded that there was insufficient quantitative evidence about the degree of the advantage enjoyed by a female athlete with hyperandrogenism over a non-hyperandrogenic female to justify exclusion.

Without sufficient proof that the 2011 Regulations were necessary and proportionate for the purpose of pursuing the legitimate objective of organising competitive female athletics to ensure fairness in competition, CAS suspended the 2011 Regulations and Chand was once again permitted to compete.

➤ **Semenya**

Following the introduction of the IAAF 2018 Regulations, Semenya and Athletics South Africa (ASA) (the claimants) filed arbitration proceedings, challenging the validity of the 2018 Regulations on both legal and scientific grounds, since they would once again apply to Semenya. The case builds upon the issues raised in Chand v IAAF but went further and uncovered key deficiencies in the protection of athletes' rights.

Whereas in Chand v IAAF the IAAF accepted that their 2011 Regulations were prima facie discriminatory, they disagreed that there was any improper discrimination here. The IAAF asserted that 46 XY DSD athletes were biologically male and fundamentally different to biological women in the one trait that they considered to be the key sex difference in sport performance (testosterone), which therefore justifies the division between men and women. Semenya and the ASA claimed that the 2018 Regulations discriminated against certain women on the basis of sex, gender and genetics, and infringed a number of other constitutional rights such as privacy and bodily integrity. CAS ruled that the 2018 Regulations were discriminatory, but it needed to be determined whether that discrimination was necessary, reasonable and proportionate to justify it.

Conclusion

Sexual harassment and gender discrimination in India's sports industry have serious legal and ethical implications that call for prompt attention. The findings brought to light the pervasive gender bias and power imbalances in the sports sector that prevent the inclusion and growth of female athletes. There is still considerable work to be done to guarantee that athletes may pursue their aspirations without encountering harassment or discrimination, despite attempts to promote gender equality and provide safe conditions.

Among the laws in India that forbid sexual harassment and gender discrimination are the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act and the Protection of Children from Sexual Offences Act. These laws offer a framework for dealing with these issues and pursuing justice for the victims. However, implementation and enforcement still present significant challenges. Stronger implementation strategies are required, including awareness campaigns, training programmes, and effective grievance redressal procedures, to ensure that athletes feel safe and supported when reporting events.

After examining the problems and the legal positions related to sexual harassment and gender discrimination it is believed that The National Sports Development Bill, 2013,[29] has incorporated provisions with respect to this issue and it is high time that legal sanctity should be given to this draft bill. Also, Sexual harassment and gender discrimination in sports violate the ethical ideals of justice, equality, and respect. Regardless of gender, athletes should be judged and treated according to their ability, skills, and commitment rather than their gender.

Women's sports have come a long way historically, but there is still more work to be done. In addition to being one of the fields where gender equality is necessary, sport is frequently considered as a means of empowering women. To achieve this, we believe that numerous legislative and other efforts of the kind stated must be enacted in the Indian context. In conclusion, eliminating sexual harassment and gender discrimination in India's sports business requires a determined effort from all parties concerned. By creating a culture of equality, respect, and inclusivity and allowing female athletes to reach their full potential, the sports industry may aid in the promotion of societal change.

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KEY SOCIAL JUSTICE ISSUES IMPACTING SOCIETY – A STUDY

Lokesh.J.N

Assistant Professor, Dept of Sociology
Govt First Grade College, Channarayapatna

ABSTRACT

Social justice is a term that is often used to describe the principle that people who are disadvantaged or oppressed by society should be treated equally. This is a lofty ideal, and one that many people feel is necessary in order to create a just society. However, is social justice really a myth? In this post, we will be looking at the idea of social justice from an Indian perspective. We will be discussing the concept of caste, and how it has negatively impacted the lives of millions of people. We will also be examining the way that the Indian government has failed to provide social justice to its citizens.

Keywords: Income, Poverty, Food, Social justice, Caste, Idea, Indian government

Introduction

The social justice movement in India has been the topic of much debate and discussion. The term “social justice” has been used to describe a wide range of different ideologies, from those who believe in social justice as a basic human right, to those who believe that it can be achieved through economic reform. Many people in India believe that the social justice movement is a myth, and that it does not exist at all. They believe that the movement is a product of Western ideas, and that it is used to justify the exploitation of India by the Western world.

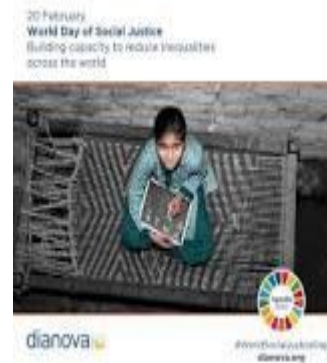
Others believe that the social justice movement is a necessary part of the development of India, and that it has been instrumental in helping to improve the living conditions of the Indian people. Social justice is built on the pillars of human rights, equity, participation, and access. When a society is just, everyone is respected, supported, and protected. Achieving social justice isn't easy as there are many issues that need to be addressed.

1. **The gender pay gap :** Around the world, the gender pay gap is one of the slowest-moving social justice issues. There's been progress, but according to the World Bank's Women, Business, and the Law 2022 report, around 2.4 billion women of working age aren't getting equal economic opportunities. 95 countries don't ensure equal pay for equal work. When it comes to lifetime earnings, how big does that gap end up being? Globally, The World Bank Managing Director of Development Policy and Partnership says women make about \$172 trillion less than men. Some areas are doing better than others. According to the WE Forum's Global Gender Gap Report, only five countries got scores higher than 0.800 on wage equality for similar work: Albania, Burundi, Algeria, Iceland, and Singapore. Unfortunately, wage equality for similar work has gone down since 2021 in seven countries, including China and Cambodia.
2. **Income inequality :** The gender pay gap contributes to income inequality, but it's not as if all men are doing well financially. Income inequality concerns people within states and the wealth between states. When the pandemic struck, global income inequality got worse and even undid some of the progress of the past 20 years. While the global



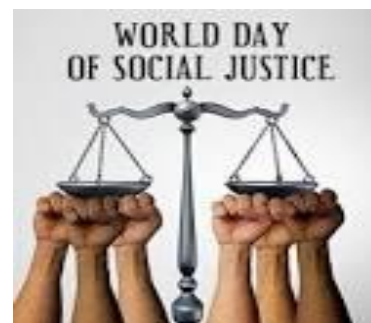
economy rebounded in 2021, the World Bank estimated that global growth would decelerate from 5.5.% in 2021 to 3.2% in 2023. Inflation is also a major issue. However, while people fall into poverty, the world's ten richest men more than doubled their fortunes during the first two years of the pandemic, earning an average of \$1.3 billion a day. It's hard to think of something more unequal than that.

3. **Climate change** : Many factors drive climate change, such as agriculture, offshore drilling, fracking, and more. Despite decades of warnings and serious events like drought and hurricanes, fossil fuel emissions are not improving. The past seven years were the warmest on record. Scientists agree that if significant change isn't made, temperatures will continue to rise. Extreme weather events will become more frequent and billions will be at risk. Fighting climate change is important because it affects other issues, such as food security, poverty, gender equality, and more.
4. **Food insecurity** : With climate change, supply chain issues, and inflation, food insecurity is an ever-present issue. Things got especially dire in 2022 when Russia invaded Ukraine and blockaded Ukrainian ports, cutting off grain exports to the rest of the world. While events like war trigger food insecurity, increased hunger has been on the rise for years. The 2022 edition of The State of Food Security and Nutrition in the World (SOFI) report found that hunger affected around 828 million people in 2021, which reflects a 46 million increase.
5. **The refugee crisis** : According to the UN Refugee Agency, over 2 million refugees will need to be resettled in 2023. That's a 36% increase from 2022. There are a few reasons why, including the pandemic, climate change, conflict, and more. Women and children are especially vulnerable to trafficking and violence. According to a report from Save the Children, "likely all children" migrating to Europe through the Balkans faced violence. Police and smugglers were the most common perpetrators. Both the resettlement and safety of refugees as they migrate are must-address social justice issues.
6. **Universal healthcare** : "Good health and well-being" is the third Sustainable Development Goal. It's closely linked to other goals such as clean water, sanitation, and zero hunger. To achieve this goal, universal healthcare is essential. The need for it was made blatant during the COVID-19 pandemic, but healthcare systems around the world were already failing many people. According to the WHO, over 930 million people spend at least 10% of their household income on healthcare. Because of out-of-pocket spending, 100 million people fall into poverty each year. Universal healthcare, which ensures everyone has access to all the healthcare they need without financial hardship, is one of the most urgent social justice issues.
7. **Poverty** : The world has been trying to deal with poverty for many years, but according to the World Bank, it's unlikely to end extreme poverty by 2030. COVID-19 was a big reason why. In 2020, 70 million people fell into extreme poverty. This number represents the largest one-year increase since 1990 when the world started monitoring global poverty. Extreme poverty, which is defined as earning less than \$2.15 a day,



concentrates in areas where it's hard to address, such as rural areas, Sub-Saharan Africa, and areas with conflict. Ending poverty is complex and involves addressing other social justice issues, such as low-quality education, inferior healthcare, gender inequality, and so on.

8. **Gender-based violence** : Gender-based violence is a global issue. According to the WHO, about 30% of women have endured physical and/or sexual violence in their lifetime. Most violence is perpetrated by an intimate partner. This type of violence affects a person's sexual, mental, emotional, and physical health. The violence can also be fatal. Around the world, around 38% of murdered women were killed by their intimate partners. Reports, like the one released by the United States Institute of Peace, found that COVID-19 made gender-based violence worse. How can gender-based violence be addressed? It requires a multi-faceted approach. Improved gender equality, early education, better legal protections for women, and more are essential pieces of the puzzle.
9. **State violence** : Violence perpetrated by the state is a growing concern. We've seen several examples in just a few years. In 2020, U.S. protests against police brutality were met by more excessive force in places like New York City, where police officers trapped protesters. Unable to leave, the protesters were trapped until the start of the city-wide curfew, after which the police began attacking them without warning. A report by Human Rights Watch stated that "the police response to the peaceful Mott Haven protest was intentional, planned, and unjustified." In 2022, Iran (which already has a long history of state violence) responded to peaceful protests with brutality. While exact numbers are hard to come by, hundreds of protesters could have been killed, including many children.
10. **Threats to the trans community** : The LGBTQ+ community as a whole is vulnerable to violence and discrimination, but the trans community has been facing an increasing number of threats. The United States provides many disheartening examples. In Florida, the state board of medicine agreed to start the process of barring minors from receiving puberty blockers, hormone therapy, or surgeries to treat gender dysphoria. This goes against organizations like the American Medical Association, the American Psychological Association, and the American Academy of Pediatrics, which support gender-affirming care for young people. Meanwhile, in Keller, Texas, a school board voted to ban all books that even mention gender fluidity. Actions like this represent a concentrated effort to roll back rights for LGBTQ+ people.
11. **Eroding democracy** : Freedom House, an organization that conducts research and advocacy on democracy and political freedom, has found that global freedom is declining. In their 2022 report, they found that while only 25 countries improved their democracy, 60 countries got worse. 2023 could be worse for places like Southeast Asia where in Myanmar, the junta continues to rule. Freedom is also threatened in Afghanistan where the Taliban have once again taken over. In November, the Taliban ordered judges to impose its interpretation of Sharia Law, which could open the door to even worse human rights violations.



12. **Political extremism** : Eroding democracy is closely linked to political extremism, which is becoming an increasingly urgent problem. On January 6th, 2021, a riot of Trump supporters attacked the United States Capitol in an attempt to stop the electoral vote count. This represents a trend of overtly violent political extremism, which has included a mass shooting in Buffalo and an attack on the husband of Nancy Pelosi, the Speaker of the House. Political extremism isn't limited to the United States. A ProPublica article published not long after the insurrection outlined a growing international network of right-wing extremists. It's been happening for years. While the world focused on Islamic extremism following 9/11, right-wing extremism grew fairly unhindered.
13. **Cybersecurity threats** : According to the WEF's Global Risks Report 2022, cybersecurity vulnerabilities are a major concern. In wake of the pandemic, many economies underwent rapid digitalization. While useful, that has increased the risk of cyberattacks. 2022 saw some significant attacks, including in Costa Rica, where a cyber gang known as Conti disrupted financial operations. The Ministry of Finance was targeted, leading the country to declare a national emergency. What does this have to do with social justice? Cybersecurity is closely related to issues of privacy and safety, which are social justice issues. Who gets access to the best cybersecurity measures is also a social justice issue. As this blog post by Merritt Baer points out, cybersecurity is a wealth discrimination issue.
14. **Reproductive rights** : Reproductive rights are linked to other social justice issues like gender equality, healthcare, poverty, LGBTQ+ rights, and more. While it's not the only reproductive right, the right to abortion remains a significant concern. Worldwide, the laws vary, though many countries only allow abortion to save the mother's life. In places like the Philippines, Iraq, Andorra, Congo, and Egypt, abortion was prohibited completely at the time of writing (2022). Abortion rights can also be taken away. In June, the US Supreme Court overruled Roe v. Wade, saying that abortion was not a constitutional right. In an even more concerning move, some states are already targeting birth control.
15. **Racism** : Racism takes many forms, but it remains a persistent social justice issue. Throughout 2020, a wave of anti-Asian hate crimes surged around the world. An article in Time collected various statistics from places like New Zealand, which found that 54% of Chinese survey participants had experienced discrimination. In the UK, hate crimes against Chinese, East, and South East Asians rose by as much as 300% compared to data from 2018 and 2019. Racism against Black people is still prevalent, too. The National Urban League released its annual report in 2022, reporting that while Black Americans made economic and health gains, white people were still ahead in education, social justice, and civic engagement. These are just two examples of racism and why it needs to be addressed.
16. **Voting rights** : Exercising the right to vote is one of the social justice issues prioritized by the National Association of Social Workers. NASW's goal is twofold: encourage those who can vote to exercise their right and work to eliminate barriers to participation. As the 2020 presidential election approaches, NASW is hosting webinars on engaging millennials to vote and on understanding the barriers that can hold back low-income individuals, college students, senior citizens, minorities and many others. These obstacles can include difficult voter registration, shortened early voting windows and stricter identification requirements.



17. **Climate justice** : On the list of social work’s Great Challenges, it might be surprising to see “strengthen social responses to environmental changes.” The effects of climate change can be seen all over the news from wildfires in Australia to record-breaking temps in the Arctic (one recent paper found that polar bears could be nearly extinct by the end of this century). This might seem like a problem for scientists, not social workers, but climate change can put a strain on resources and impact the wellbeing of entire communities. In reality, addressing climate justice can positively affect many of the other issues on this list, and social workers have the network and skills to mobilize and educate others on its impact.
18. **Healthcare** : Social work and healthcare are intrinsically tied together. There are a number of challenges when it comes to receiving quality healthcare, particularly in the U.S. Despite the passage of the Affordable Care Act in 2010, gaps in coverage remain, particularly with mental health resources. The U.S. spends more on healthcare for individuals than any other country, but that increase in expenditure has not translated to higher life expectancies for Americans. Social workers offer support to individuals, groups and entire communities, so it matters whether one person is struggling or whether an entire community is struggling to find the care they need. This year, the COVID-19 pandemic has shown just how vital access to healthcare really is as many communities struggle to access tests, treatment and mental health professionals.
19. **Refugee crisis** : It dominated headlines in 2019, and it still remains a critical issue for those directly impacted. According to the United Nations, more people than ever before live in a different country than the one where they were born. Roughly 70.8 million people have been forced from their homes. Nearly 30 million of them are refugees, and more than half of the globe’s refugees are under 18 years old. This displaced population faces the challenges of accessing education, healthcare, job opportunities and other resources. Whether it’s escaping conflict in their home country or a natural disaster, refugees need additional support dealing with the logistical, mental and emotional burdens of their situation—support that social workers are uniquely adept at providing.
20. **Racial Injustice** : Racism has a long history in the United States, and its impact can be found in every facet of education, business, media and day-to-day life. After the killing of George Floyd in Minnesota and several other high-profile police shootings, Black Lives Matter protests took place across the country and have continued as activists demand substantial change. Many social workers are all too aware of the devastating and long-term consequences of racial injustice on the mental and physical health of individuals, and more recently, the NASW has vocalized its support for federal legislation that would enact police reform and address systemic racism within the criminal justice system.
21. **Income Gap** : A recent federal report found that in 2018, America’s income gap was the largest it’s ever been in 50 years. Following the COVID-19 pandemic, that divide will most likely be much bigger. Social workers play a critical role in assisting those struggling. Also, pay disparities can be a factor at play, based on both race, gender and sexuality. Even in the field of social work, the gender pay gap exists, where there is a significant difference in how men and women are compensated for the same work.
22. **Gun Violence** : Many medical professionals consider gun violence to be a public health crisis, but its impact can be felt across health and human services fields. From homicides to mass shootings to suicides, gun violence is a particularly troubling



problem in the U.S., where homicides tied to firearms is the highest among developed nations. However, the impact of gun violence goes beyond those who have been killed. Those who have been injured, witnessed gun violence or lost someone also suffer long-term effects, both mentally and physically.

23. **Hunger and food insecurity** : Even before the pandemic, Feeding America found that 37 million regularly face hunger in the U.S., and 38 million live in poverty. Food insecurity remains a stubborn issue to solve, so as unemployment rises and many schools remain closed, accessing food through food banks and free school lunches will become more difficult. It's also one that will continue to gain attention as more Gen Zers become old enough to vote. One notable survey found that Gen Z believes poverty and hunger are essential matters to address, while older generations rate it lower on a social issues list.

24. **Equality** : It's something stated in NASW's Code of Ethics, but ensuring equality is an essential part of a social worker's role. It's an issue that pervades nearly all of the issues already presented—whether it's related to finances or access to resources. It's also become painfully more relevant as the COVID-19 pandemic impacts marginalized communities at higher rates both economically and medically. Obtaining equality in America is a big picture issue that social workers have been and will continue to be dedicated to addressing.



Types of Social Justice Issues

Social justice issues can be delineated into two categories, which are interrelated and often co-dependent: Inter-Social Treatment and Unequal Government Regulation.

Inter-Social Treatment involves treatment of certain groups of people based on personally-held biases and prejudices. These prejudices most often manifest in relation to social identity categories such as:

- Race
- Gender
- Age
- Sexual Orientation
- Religion
- Nationality
- Education
- Mental or Physical Ability

Unequal Government Regulation involves laws and regulations that purposefully or otherwise create conditions that obstruct, limit, or deny certain groups equitable access to the same opportunities and resources available to the rest of society. These laws can intentionally (explicitly) or unintentionally (implicitly) create the conditions for social injustice. Areas in which government policy often gives rise to social inequality and injustice include:

- Voting Laws (i.e. redistricting and voter ID)
- Policing Laws (i.e. search and seizure and drug scheduling)
- Environmental Laws (i.e. clean water and air, industrial waste disposal)
- Health Care Laws (i.e. insurance mandates and coverage eligibility)
- Education Laws (i.e. public school segregation and integration)
- Labor Laws (i.e. worker's rights, occupational health and safety)

For a long time now, the Indian social justice movement has been receiving a lot of attention from people all over the world. This attention has been good for the movement in many

ways, as it has helped to raise awareness about the various issues that plague the country. However, some people have accused the social justice movement of being nothing more than a myth.

The social justice movement has been accused of promoting a false sense of hope in the country. It has been said that the movement is nothing more than a way for people to make money by exploiting the poor and vulnerable. These accusations have been made by many people, both those who support the social justice movement and those who don't. It's important to remember that the social justice movement is a complex issue. There are many different views on it, and it's difficult to determine what truly qualifies as social justice. It's possible that the accusations made against the social justice movement are true, but it's also possible that they are false. We may never know for sure.

Conclusion

In recent years, social justice movements have taken hold in India, with people rallying around the slogan "Equal rights, same opportunities." While there is certainly some truth to this sentiment, it is not without its critics. Some argue that social justice in India is nothing more than a myth, perpetuated by the government and the media in order to keep the population under control. It is an interesting perspective to consider, and one that should be taken into account when assessing the state of social justice in India.

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EFFECT OF MENTAL IMAGERY TRAINING PROGRAMME OF SPORTSPERSONS

Maheshwari L. Udagatti

*Research Scholar,
Karnatak State Akkamahadevi Womens University, Vijayapur*

Prof. D. M. Jyothi

*Research Guide,
Karnatak State Akkamahadevi, Womens University, Vijayapur*

ABSTRACT

We shall create and recall experiences mentally. For example, an employee rehearses how she will ask her boss for a raise, imagining how she will dress in her most business-like suit and stand confidently in front of the boss's large, mahogany desk, with its smell of beeswax polish. She hears herself speaking slowly, quietly, and clearly, listing her skills and accomplishments that merit increased remuneration.

Keywords: *Sports, Imagery, Power, Effect, Imagery technique, Types, Functions*

Introduction:

Yesterday's bridegroom remembers standing in front of the wedding guests in their brightly coloured, new outfits as he made his speech in a shaky and unusually throaty voice. He senses against how dry his mouth felt as he spoke. He recalls the words he used in welcoming the guests to the celebration, lauding the bride, and thanking emotional parents (hearing echoes of his mother sobbing happily). He relives the embarrassment he felt when he knocked over a tall champagne flute as he waved his hands excitedly, as if conducting his own speech. He feels the rap of his hand against the glass, hears the tinkle it made as it hit a saucer on its way down, and senses, the cool moisture of the champagne on the back of his hand. In fact, just from reading these descriptions you might be experiencing some of the sights, sounds, smells, and bodily sensations that these experiences evoked in others.

Imagery:

Definitions The definition and conceptualization of the imagery construct in relation to sport remains an ongoing challenge for researchers and theorists. A recent resurgence in interest in the task is apparent; however, limited liaisons between the various investigative cohorts may restrict the formulation of accepted definitions of sport imagery constructs.

Within the field of cognitive psychology, descriptions of mental imagery lack consistency in terms of the features that constitute the process. The focus of each definition seems to vary depending on the purpose for which the imagery description is used. Unfortunately, many definitions of imagery derived from sport psychology literature have tended to focus on only limited aspects of this ubiquitous mental experience.

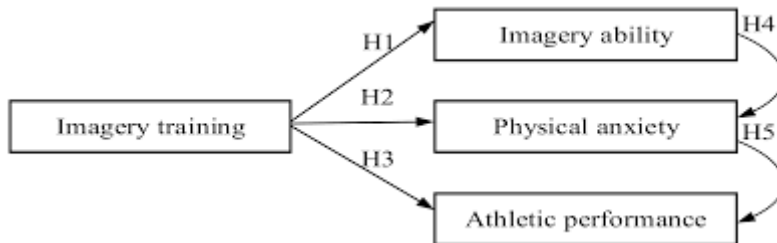
Power of Imagery:

Imagination is terrifically powerful. By mentally rehearsing a routine before a major competition, athletes can prepare themselves to achieve their optimal performance when it counts most. By imaging playing at their peak, athletes can build their confidence for a match. Imagery can also help a performer through a tough injury layoff by shifting attention away from the injury onto the mental rehearsal of sport skills. Knowing that research supports the value of imagery for maintaining skill level when physical practice is not possible can help motivate an athlete during recovery. When physical practice is not possible such as, during travel, imagery can provide athletes with a way to practice. It allows them to review previous strokes or movements so they can correct errors. It is

difficult to think of anything else that has as much potential to enhance or destroy not only performance outcomes but also the entire experience of sports.

Working Definition of Sport Imagery:

Imagery, in the context of sport, may be considered as the creation or re-creation of an experience generated from memorial information, involving quasi-sensorial, quasi-perceptual, and quasi-affective characteristics, that is under the volitional control of the imager, and which may occur in the absence of the real stimulus antecedents normally associated with the actual experience. A review of several other recent conceptualizations reveals the researchers' efforts to generate a suitable framework from which to explore how imagery operates in sport. Conceptualizations such as sport imagery use, PETTLEP, and imagery content models represent viable representations that further research will refine and confirm. The Murphy and Martin (2002) model of imagery in sport establishes a base from which to categorize theories and evidence about the imagery's operation and involvement in athletic performance.



Efforts to extend the explanation of the imagery construct within sport psychology are progressing positively. For a long time, too few theorists were prepared to propose definitions or construct models. Thus, perhaps undeservedly, they sustained the misconception that reasonable degree of divergence, increased information sharing and interaction between research groups should lead to a more succinct set of descriptors for sport imagery.

The structural conceptualization underlying measures of imagery ability and imagery use has varied considerably. There are unimodal, unidimensional tests such as the VVIQ, VMIQ, and GTVIC; multimodal, unit dimensional questionnaires such as the SQMI, and MIQ; and multi scale measures of imagery use such as the SIQ.

Imagery is a powerful and useful psychological tool that can be applied for various purposes in sport and exercise. Although we have described some of those potential applications, many more uses than we can imagine probably exists. The applications we discussed include skill learning and practice, development and practice of tactical skills, competition preparation and performance, improvement of psychological skills, and coping with injury and heavy training.

Types of Imageries	Sports Performance
Internal Imagery	0.72** (0.000)
External Imagery	0.79** (0.000)

** p<.01

The different imagery techniques in sport:

The five functions of imagery include,

1. Motivational-specific.
2. Motivational general-mastery.
3. Motivational general-arousal.

4. Cognitive specific.
5. Cognitive general.

Imagery functions:

Using Paivio's original taxonomy of imagery function as a basis, Hall, Mack, Paivio and Hausenblas (1998) identified five functions of imagery in the development of the Sport Imagery Questionnaire, which has been incorporated by Martin, et al. (1999) in to their conceptual model of imagery use in sport settings. This approach really outlined the different imagery techniques in sport. The five functions of imagery include, motivational-specific, motivational general-mastery, motivational general-arousal, cognitive specific, and finally, cognitive general. A description of each imagery function is outlined below:

- Motivational-Specific (MS) imagery represents specific goals and goal-oriented behaviours such as imagining receiving a gold medal at an Olympic Games.
- Motivational General-Mastery (MG-M) imagery refers to effective coping and mastery of challenging situations. For example, imagining feeling confident while climbing a difficult rock face or being focused prior to a crucial penalty kick in a rugby match.
- Motivational General-Arousal (MG-A) imagery focuses on feelings such as relaxation, stress, arousal and anxiety in conjunction with sport competition. For example, imagining feeling anxious as you take a crucial penalty kick in a soccer match, or feelings of excitement as you take the field for your first-ever international match in cricket.
- Cognitive Specific (CS) imagery refers to specific sport skills, such as, executing a perfect golf drive or a vault in gymnastics.
- Cognitive General (CG) imagery refers to competitive strategies. For example, a point guard imagining the execution of a full court press in basketball or a field hockey player imagining a particular short-corner play.

When using imagery, it is important to make sure the image occurs in 'real time' - the same speed it happens in real life. It is also important that that the imagery is positive - something the person wants to happen and not something to avoid.

Conclusion:

Finally, like all skills (mental and physical) the more imagery is practiced the better the skill is developed. Many psychologists suggest to practice a little and often. For example, spend 3 to 5 minutes a day imagining and become comfortable using imagery in a low stress situation, first. For example, in a quiet comfortable room before it is transferred to more stressful settings such as training sessions and then before competition. Some athletes find it helpful to develop an imagery script to assist them while others somethings watch a video to help stimulate some of the experiences.

We hope this overview of imagery has been helpful. There are plenty more helpful blogs, and videos, that can be found on our site so please explore to learn more about mental skills and sports performance.

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A CASE STUDY ON PERFORMANCE EVALUATION OF CAPITAL MARKET EFFICIENCY IN SELECTED AUTOMOBILE INDUSTRIES IN INDIA

Dr Margaret Mary

Assistant Professor

Government First Grade College, Srirangapatna

ABSTRACT

Capital Market is a market where long term funds can be raised. It provides an additional channel for engaging and mobilizing domestic savings for productive investment. Capital Market is a market where long term funds can be raised. It provides an additional channel for engaging and mobilizing domestic savings for productive investments. In this connection this study mainly aims to understand the theoretical background and current scenario of capital market of automobile industry and assess the financial and operational performance of the selected automobile Industries in India. This study conducted on purely based on secondary sources of data and this study correlation model summary results that net profit margin, return on assets and return on equity category P value (Sig 2-tailed) is less than the alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be rejected and alternative hypothesis is accepted Toyota Kirloskar and Volvo India Private Limited companies shows good and better financial condition and show wealth financial performance in selected automobile industries in India.

Keyword: *Capital Market, Rational Capital, Efficiency and Automobile Industry*

INTRODUCTION

Capital market is structured to serve as a platform for the sales and purchase of stocks and bonds. Diverse speculations and intellectual theories have been formulated around capital market, among which one of the most notable one was the Efficient Market Hypothesis (EMH), propounded by Eugene Fama in the 1960s. Concisely, the EMH ascertains that all information for sellers and purchasers of stocks are available in the prices of the stocks/ securities, hence, the exceptional performance of a security exclusively attributed to the investor is purely based on chance and not skill. Capital market is one of the most important segments of the Indian financial system. It is the market available to the companies for meeting their requirements of the long-term funds or assets that is share and debentures. In other words, it is concerned with the raising of money capital for purposes of making long-term investments. These securities are regularly transacted that is sold and purchased at particular price which is supposed to reflect all the information relating to the issuing company. In order to understand why good financial decisions are reflected in positive share prices adjustment as well as how the securities are valued or priced in the market, it is necessary to have an understanding of the efficiency of the market.

The efficiency of the capital market is often defined in terms of its ability to reflect the impact of all relevant information in the prices of securities. An efficient market is one which ensures that the prices of the securities quickly adjust to new information and reflect it in market prices of the securities. The information is reflected in share in such a speed that there are no opportunities for the investors to profit from publicly available information. The market consists of a number of individuals and institutions (including the Government) that canalizes the supply and demand for long - term capital and claims on it. The demand for long term capital comes predominantly from private sector manufacturing industries, agriculture sector, trade and the Government agencies. While, the supply of funds for the capital market comes largely from individual and corporate savings, banks, insurance companies, specialized financing agencies and the surplus of Governments. The automobile

industry is among the sectors that have been hit most by the recession. Demand for cars fell sharply, accentuating the difficulties of excess production capacity already faced before the crisis and deepening the economic downturn in major car-producing countries. Relative to the general downturn, the decline in car sales was nonetheless not deeper than what was observed in the past.

Review of Literature:

Grimm (2014), explores fundamental analysis to determine its application as an Austrian approach to common stock selection. The Thymologic method and the category of understanding are applied as frameworks for an Austrian approach and to evaluate fundamental analysis as a process for common stock selection. The analysis supports the conclusion that fundamental security analysis can be practiced in a manner consistent with traditional Austrian views and is suitable as a common stock.

Gupta, (2016), examined the perceptions about the main sources of his worries concerning the stock market. A sample comprise of middle-class household's spread over 21 states/union territories. The study reveals that the foremost cause of worry for household investors is fraudulent company management and in the second place is too much volatility and in the third place is too much price manipulation and technical can help the investor in achieving their investment goals.

Isidore (2018), in their paper stated the pros and cons of fundamental and technical analysis. By doing fundamental analysis, an investor can predict in advance the price of a share before any change actually happens with the coming up of new information. Moreover, the authors explained the importance of doing economic and industry analysis in forecasting the growth opportunities for shares, and how fundamental analysis can meet the needs of long-term investors.

Evans (2020), tested for market efficiency of three UK Financial Coirgets of futures: FTSE 100 Gutures (Stock index Futures), Long Gilt (bond futures), short sterling (interest rate futures) and also examined the impact of the introduction of electronic trading system on their market efficiency. The results shown were that the three markets under investigation are weak-form informational efficient.

Khan (2021) attempted to seek evidence for the weak-form efficient market hypothesis using the daily data for stock indices of the National Stock Exchange, Nifty and the Bombay Stock Exchange, Sensex for the period of 2010-2020. The random walk hypothesis Nifty and Sensex was rejected. Non-Parametric test also indicate that the distribution of the underlying variables are not normal and deviations from normality had became higher in recent years.

Wickremasinghe (2022), examined the validity of the efficient market hypothesis (EMH) for the PNG foreign exchange market. Empirical tests support the EMH in its weak-form. However, various tests provide evidence that there were predictable long and short-run relationships among the spot exchange rates, refuting the validity of the EMH in its semi-strong form. Further, there was evidence that the Australian dollar plays a key role in movements of exchange rates in Papua New Guinea.

Research Methodology:

Research is considered as journey from unknown to the known. Methodology is the way to solve the research problem systematically. The required secondary data constitutes the main source of information, suitable for the purpose of the present study. The Secondary data was gathered from different sources such as, Internet, website, Professional Magazines, refereed journals and peered journals and national as well international thesis has been referred related to the capital efficiency in Automobile Industries. The data analysis we used mean, Standard deviation, chi square test, one way ANOVA and correlation analysis etc.

Objectives of the Study:

1. To understand the theoretical background and current scenario of capital market of automobile industry in India.
2. To assess the financial capital performance of the selected automobile Industries in India.
3. To analyse the operational capital performance of the selected automobile Industries in India.

Hypothesis of the Study

- H0: There is no significant financial capital performance of the selected automobile Industries in India.
H1: There is no significant financial capital performance of the selected automobile Industries in India.
- H0: There is no significant operational capital performance of the selected automobile Industries in India.
H2: There is no significant operational capital performance of the selected automobile Industries in India.

RESULTS AND OUTCOME OF THE STUDY:**1. Financial Performance of Selected Automobile Industries in India:**

Table No.1 focused on financial performance of selected Automobile Industries in India. The financial ratios have been classified into major four categories as follows, net profit margin, return on assets, return on equity and earning per share etc. In the context of net profit margin and return on assets, the highest average mean were found 2.78 and 0.71, this indicates Maruti Suaki India and Hyundai Motors company shows good financial position and further return on equity and earning per share (EPS) highest average mean were found 14.51 and 6.34, this indicates and Toyota Kirloskar and Volvo India Private Limited companies shows good and better financial condition and show wealth financial performance in selected automobile industries in India.

Table No.1 Shows Financial Performance of Selected Automobile Industries in India

Automobile Industries		Net Profit Margin	Return on Assets	Return on Equity	Earnings Per Share (EPS)
Maruti Suaki India	Mean	2.27	0.56	4.74	0.57
	Std. Deviation	0.85	0.18	0.82	0.16
	Skewness	1.67	1.30	-0.07	0.63
	Kurtosis	1.54	2.21	-0.55	0.35
	Range	2.40	0.64	2.60	1.00
Tata Motors Ltd	Mean	2.25	0.45	6.69	0.73
	Std. Deviation	1.63	0.09	3.88	0.46
	Skewness	1.75	0.46	-0.15	0.72
	Kurtosis	1.38	-0.81	-0.93	-0.33
	Range	4.19	0.26	11.68	1.00
Volvo India Private Limited	Mean	4.40	0.12	4.69	0.12
	Std. Deviation	2.78	0.08	4.43	6.06
	Skewness	1.74	0.85	1.85	0.37
	Kurtosis	1.35	0.04	3.62	-1.09
	Range	7.03	0.25	14.40	0.00
Toyota Kirloskar	Mean	2.86	0.71	14.51	0.49
	Std. Deviation	0.63	0.39	5.18	0.14
	Skewness	1.52	0.71	0.93	0.52
	Kurtosis	4.21	-0.69	-0.44	-0.17
	Range	2.43	1.12	14.55	0.00

Hyundai Motors	Mean	1.37	3.55	3.86	5.34
	Std. Deviation	0.34	0.40	1.10	5.10
	Skewness	1.44	0.47	-0.60	1.90
	Kurtosis	0.81	-1.11	0.34	3.55
	Range	0.95	1.19	3.72	17.00

Sources: Secondary Data.

The below table one way ANOVA results that net profit margin, return on assets and return on equity category, the P value (Sig 2-tailed) is 0.009,0.011, 0.000, which is less than the Alpha value of 0.05, it was found to be significant. Therefore the results indicate that the stated null hypothesis to be rejected and alternative hypothesis is accepted. Further the data of level of Earnings per Share (EPS) the P value (Sig 2-tailed) is 0.795, which is more than the Alpha value of 0.05, it was found to be Insignificant. Therefore the results indicate that the stated null hypothesis to be accepted and alternative hypothesis is rejected.

Table No.1 (a) Shows Financial Performance of Selected Automobile Industries in India

Variables		Sum of Squares	Mean Square	F	Sig.	Hypotheses
Net Profit Margin	Between Groups (Combined)	113.827	9.486	2.359	0.009	Rejected
	Within Groups	470.419	4.021			
	Total	584.246				
Return on Assets	Between Groups (Combined)	48,771.437	4,064.286	2.303	0.011	Rejected
	Within Groups	206,449.683	1,764.527			
	Total	255,221.120				
Return on Equity	Between Groups (Combined)	16,619.666	1,384.972	25.606	0.000	Rejected
	Within Groups	6,328.157	54.087			
	Total	22,947.823				
Earnings Per Share (EPS)	Between Groups (Combined)	719.362	59.947	0.650	0.795	Accepted
	Within Groups	10,793.350	92.251			
	Total	11,512.712				

Significant level 5%.

2. Operational Performance of Selected Automobile Industries in India:

Table No.2 focused on operational performance of selected Automobile Industries in India. The operational ratios have been classified into major four categories as follows, current ratio, acid test ratio, debt ratio and debt equity ratio etc. In the context of current ratio and acid test ratio, the highest average mean were found 1.61 and 12.52, this indicates Tata Motors Ltd and Hyundai Motors company shows good financial position and further debt ratio and debt equity ratio, highest average mean were found 54.31 and 37.63 this indicates and Toyota Kirloskar and Volvo India Private Limited companies shows good and better financial condition and show wealth financial performance in selected automobile industries in India.

Table No.2 Shows Operational Performance of Selected Automobile Industries in India

Automobile Industries		Current Ratio	Acid Test Ratio	Debt Ratio	Debt-Equity Ratio
Maruti Suaki India	Mean	1.15	10.74	31.51	11.36
	Std. Deviation	0.18	0.75	8.66	53.22
	Skewness	0.29	-2.10	0.06	-0.80
	Kurtosis	-1.29	5.47	-0.42	2.39

	Range	0.52	2.76	27.41	205.00
Tata Motors Ltd	Mean	1.61	11.13	41.72	9.28
	Std. Deviation	0.30	1.82	11.76	7.30
	Skewness	-0.12	0.64	-0.79	1.63
	Kurtosis	-1.11	1.81	0.65	2.34
	Range	0.90	6.85	40.47	23.00
Volvo India Private Limited	Mean	1.53	11.09	25.47	37.63
	Std. Deviation	0.19	4.64	5.78	2.35
	Skewness	0.58	1.56	0.10	-0.54
	Kurtosis	1.03	1.55	0.35	-0.53
	Range	0.64	14.08	20.23	7.00
Toyota Kirloskar	Mean	1.58	9.44	17.13	14.39
	Std. Deviation	0.51	1.01	54.31	178.95
	Skewness	0.50	0.36	1.02	3.08
	Kurtosis	0.36	0.29	-0.22	9.58
	Range	1.64	3.34	12.17	598.00
Hyundai Motors	Mean	1.39	12.52	22.77	27.67
	Std. Deviation	0.48	0.71	9.02	78.96
	Skewness	0.97	0.58	1.05	3.00
	Kurtosis	0.90	-0.44	-0.56	9.29
	Range	1.61	2.28	23.09	276.00

Sources: Secondary Data.

The below table shows the correlation analysis of operational performance of selected automobile industries. The all the category of current ratio, acid test ratio and debt equity ratio, the P value (Sig 2-tailed) shows which is more than the Alpha value of 0.05, it was found to be Insignificant. Therefore the results indicate that the stated null hypothesis to be accepted and alternative hypothesis is rejected. The results also show a significant positive relationship between current ratio to debt equity ratio as well as acid test ratio to debt-equity ratio etc.

Table No.2 Shows Operational Performance of Selected Automobile Industries in India

Auto Mobile Companies		Current Ratio	Acid Test Ratio	Debt Ratio	Debt-Equity Ratio
Current Ratio	Pearson Correlation	0.105	0.472	-0.432	0.547
	Sig. (1-tailed)	0.387	0.084	0.106	0.051
Acid Test Ratio	Pearson Correlation	-0.264	0.559	-0.270	0.516
	Sig. (1-tailed)	0.230	0.046	0.225	0.063
Debt Ratio	Pearson Correlation	-0.185	-0.468	0.375	-0.555
	Sig. (1-tailed)	0.304	0.086	0.143	0.048
Debt-Equity Ratio	Pearson Correlation	-0.038	0.562	-0.383	0.592
	Sig. (1-tailed)	0.459	0.046	0.137	0.036

Significant level 5%.

RECOMMENDATIONS OF THE STUDY

The study further established that the performance of the firm improves using more current liabilities to finance their assets which can maintain profitability. This is probably

because current liabilities are less costly than long-term debt. Additionally, the study found that increasing the proportion of current assets in relation to total assets enhanced performance as measured by both ROA and ROE. Performance standards should be established and communicated to the investors. This will help investors to achieve the standard and take better investment decisions. Identifying weaknesses of investment may be best one to improve the firm's financial performance, because it indicates the area which decision should be taken. Inflation and exchange rate also affect the listed company's performance. So, government should consider the economic growth to control the inflation. The auto mobile industry such as, Bajaj Auto Limited and Hero Motor corp. with stable and predictable cash flows as well as limited investment opportunities should include more debt in their capital structure, since the discipline that debt often brings outweighs the need for flexibility. Companies that face high uncertainty because of vigorous growth or the cyclical nature of their industries.

CONCLUSION:

Markets are efficient will always be a provocative one, given the implications that efficient markets have for investment management and research. If an efficient market is defined as one where the market price is an unbiased estimate of the true value, it is quite clear that some markets will always be more efficient than others and that markets will always be more efficient to some investors than to others. The capacity of a market to correct inefficiencies quickly will depend, in part, on the ease of trading, the transactions cost and the vigilance of profit-seeking investors in that market. This study results that category of current ratio, acid test ratio and debt equity ratio, the P value (Sig 2-tailed) shows which is more than the Alpha value of 0.05, it was found to be Insignificant. The results also show a significant positive relationship between financial capital performance as well as operational capital performance of Toyota Kirloskar and Hyundai Motors automobile companies in India.

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YOGA EFFECTIVE TOOL IN MANAGING PSYCHOLOGICAL STRESS

Meenaxi Mutalik Desai

Assistant Physical Education Director
R V College of Engineering, Bengaluru, Karnataka

ABSTRACT

Yogic science persisting since 5000 yrs and known to be spiritual for many years is now being proved through scientific studies its enormous benefits on health. Yogic science includes yogasanas (postures), pranayama (breathing practices), dhyana (meditation) and relaxation techniques that tackles human beings at all the levels. Today Medical science is giving more emphasis for prevention and maintenance of health. Man's strongest desire is to live a healthy, happy and an inspired life. Of these three, health is primary because without it, one cannot feel happy or inspired. Because of the competitive world, stressful jobs and other stressful works, man is affected with high stress and in turn this stress creates an imbalance at physical, psychological and social levels of the individual leading to various physical and psychological disorders. Yoga, an Ancient science offers an effective method of managing and reducing stress, anxiety and depression and numerous studies demonstrate the efficacy of yoga on mood related disorders. Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain wellness, and alleviate a range of health problems and ailments.

Keywords- Stress, Yoga, Psychological disorders.

INTRODUCTION

In an age of highly dynamic and competitive world, man is exposed to all kinds of stressors that can affect him on all realms of life. Hans Steely first introduced the term stress into life science. The term stress is derived from the Latin word 'Stringers' which means to be drawn tight. Stress is a complex, dynamic process of interaction between a person and his or her life.¹ Stress can affect one's health, work performance, social life and the relationship with family members. The stress response is a complex emotion that produces physiological changes to prepare us for fight or flight to defend ourselves from the threat or flee from it. Eminent behavioral scientist Stephen defines stress as that arises from an opportunity, demand, constraint, threat or challenge, when the outcomes of the event are important and uncertain. Stress can also be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. Hence we can say that

Stress is a silent killer and prolonged exposure to stress may exert harmful effect on physical, Psychological and behavioral well being of an individual. According to the National Institute for Occupational Safety and Health, 80 percent of workers experience job stress. Keeley and Harcourt in their study on 'Occupational Stress: A Study of the New Zealand and Reserve Bank' revealed that stress is caused by heavy work demands in the job itself, which the unskilled employee with little control over how the work is done, cannot adapt to or modify. Kulkarni in an article Burnout published in Indian Journal of Occupational and Environmental Medicine has said that the rapid change of the modern working life is associated with increasing demands of learning new skills, need to adopt to new types of work, pressure of higher productivity and quality of work, time pressure and hectic jobs are increasing stress among the workforce. IMPACT OF STRESS In one of the study it has been quoted as that the stress-related disorders evolve gradually through four recognizable stages. Firstly psychological changes such as anxiety, irritability and insomnia arise due to

over stimulation of the sympathetic nervous system. In the second stage symptoms such as high blood pressure, elevated heart rate and increased intestinal motility surface. In the third stage, a more profound physical or biochemical imbalance sets in, while in the final fourth stage, irreversible symptoms that often requires surgical or long term management appears. Increased sympathetic activation and the release of stress hormones, including adrenaline, lead to increases in heart rate, blood pressure, breathing, body temperature, and muscle tension. In contrast, the relaxation response has been proposed as an antidote to stress; relaxation decreases heart rate, breathing, body temperature, and muscle tension. Stress is a common characteristic for a typical college student. Academic stress can result from many different imperative stressors, such as final grades, term papers, examinations, and excessive homework. Stress has also exhibited a negative correlation with cognitive performance, thus negatively impacting academic performance.

YOGA

Rapidly emerging in the Western world as a discipline for integrating the mind and body into union and harmony, when adopted as a way of life, yoga improves physical, mental, intellectual and spiritual health. Yoga offers an effective method of managing and reducing stress, anxiety and depression and numerous studies demonstrate the efficacy of yoga on mood related disorders. Currently, treatment for anxiety and depression involves mostly psychological and pharmacological interventions; however, mind-body interventions are becoming increasingly popular as a means to reduce stress in individuals. Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain wellness, and alleviate a range of health problems and ailments. Although yoga has been practiced for over 5000years, it has only recently gained popularity in the United States and Europe

Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and spiritual dimensions of the individual. Yoga is often depicted metaphorically as a tree and comprises eight aspects, or limbs: yama (universal ethics), niyama (individual ethics), asana (physical postures), pranayama (breath control), pratyahara (control of the senses), dharana (concentration), dyana (meditation), and samadhi (bliss). Yoga has also found its special existence in Japan by its peculiarities like asana and pranayama.

EFFECT OF YOGA IN STRESS

A growing body of research evidence supports the belief that certain yoga techniques may improve physical and mental health through down-regulation of the hypothalamic- pituitary-adrenal (HPA) axis and the sympathetic nervous system (SNS). The HPA axis and SNS are triggered as a response to a physical or psychological demand (stressor), leading to a cascade of physiologic, behavioral, and psychological effects, primarily as a result of the release of cortical and catecholamine's (epinephrine and nor epinephrine). This response leads to the mobilization of energy needed to combat the stressor through the classic "fight or flight" syndrome. Over time, the constant state of hypervigilance resulting from repeated firing of the HPA axis and SNS can lead to deregulations of the system and ultimately diseases such as obesity, diabetes, autoimmune disorders, depression, substance abuse, and cardiovascular disease.

When compared between the groups there was no difference in effect. In seniors level was higher; this may be due to stress or increased sympathetic activity or increased epinephrine levels compared to the young. In two senior subjects in the initial two to three classes the increased after yoga, this might be due to pain after practicing asana or failure to relax during meditation or anxiety about yoga. However, after a few classes, once they got accustomed to yoga, levels came down. Decreased sympathetic activity signifies a decrease in stress level. In young individuals the level was low compared to seniors and it reduced after yoga practice. This signifies that yoga helps to improve mental health and to overcome routine stress. Both state anxiety and trait anxiety scores decreased after yoga practice in

both the groups. There was no difference in response between the groups. Both the young and seniors showed a decrease in their anxiety scores. Participants felt better and relaxed after practicing yoga. Response was more for state anxiety compared to trait anxiety. Thus yoga has both an immediate as well as long-term

Effect on anxiety reduction and helps to bring even behavior changes or controlled response to any type of stress if practiced regularly. It has been observed that yoga based relaxation technique decreases state anxiety more in comparison to supine rest.

EFFECT OF YOGA ON POSITIVE HEALTH

Study of Galantines et al; published a systematic review of the effects of yoga on children. These reviews have contributed to the large body of research evidence attesting to the positive health benefits of yoga. Many of the studies compared yoga to other treatment modalities, most commonly to exercise, meditation, and traditional medicine. However, little has been written about what distinguishes yoga from other treatment modalities. Yoga has recently been found to have beneficial effects on blood glucose levels in individuals with diabetes and other chronic health conditions. Yoga has been shown to be effective in relieving symptoms of mental illness including depression, anxiety, obsessive-compulsive disorder and schizophrenia. Overall, the studies comparing the effects of yoga and exercise seem to indicate that, in both healthy and diseased populations, yoga may be effective or better than exercise at improving a variety of health-related outcome measures including HRV, blood glucose, blood lipids, salivary cortisol, and oxidative stress. Furthermore, yoga appears to improve subjective measures of fatigue, pain, and sleep in healthy and ill populations.

Yoga is an increasingly popular therapy, used to maintain wellness and assist with the management of a range of health complaints. A review of the literature identified two trials evaluating the effects of yoga on reducing anxiety and stress. In a trial of 114 subjects by Khasky and Smith, yoga and imagery were found to be more effective at increasing a relaxed state compared to the control group ($p < 0.003$) and guided Imagery was more effective than yoga in reducing negative thoughts ($p < 0.03$). Malathi and Damodaran randomized 50 stressed medical students to yoga or to a nonintervention control group.7 a reduction in stress, improved sense of well-being and confidence was found in the yoga group ($p < 0.001$).15 Another Yoga-based program that has been widely studied in the use of stress reduction is the mindfulness-based stress reduction program (MBSR), which is taught, studied and popularized by Jon Kabat-Zinn and the Center for Mindfulness in Medicine,

Healthcare and Society at the University of Massachusetts Medical School. The mindfulness-based stress reduction program includes guided instruction in mindfulness meditation practices, yoga and gentle stretching, inquiry exercises to enhance awareness, individual instruction, group dialogue and home assignments. The Yoga classes were designed as a six-week program incorporating breathing techniques (prānāyāma), exercises for strength, vitality, and flexibility (āsanas), guided relaxation (yoga-nidrā), and meditation. Psychometric testing was carried out to assess symptoms of stress, anxiety, and depression across three groups: regular Yoga practitioners, beginners entering the program, and people who did not practice Yoga and these tests were re-administered after six weeks. At the end of six weeks, the Yoga beginners group showed lower average levels of symptoms of depression, anxiety, and stress than at commencement, but levels were stable for regular Yoga practitioners and people who did not practice Yoga.

EFFECT OF YOGA IN OCCUPATIONAL HEALTH

In a study of Rudra Bhandari et al, the yogic intervention was comprised of selected yogic postures, breathing mechanics (Pranayama), gestures, psychi locks, concentrations, and meditations that was given for one month among 50 corporate personnel (25 male & 25 female) from Indian Telephone Industry, Raebrali, India. The result met showed significant effect of the yogic intervention to manage distress and enhance work performance at

$p < 0.01$ and favored the efficacy of corporate yoga to boost health, harmony, morale, work motivation, commitment, performance and productivity at individual and organizational levels.

BIOCHEMICAL MARKERS OF STRESS

Advanced research is also been carried out in yoga wherein the cortisol levels were assessed in multiple independent trials. However, the results were inconsistent, with the majority of the studies showing no effect of yoga practice on cortical concentrations. Conversely, vadiraja and colleagues reported significant decreases in 6. a.m. and pooled diurnal salivary cortisol concentrations in 42 breast cancer patients after a 6-week yoga intervention compared to 33 breast cancer patients in the control group. Similarly We stet al reported a significant decrease in salivary cortisol in undergraduate students after a semester-long Hatha yoga course. decreased serum cortisol concentrations were also found in 8 yoga instructors after 1 hour of yoga practice as compared to before practice.

CONCLUSION:

Yoga is said to be a complete science as it fulfills the definition of WHO of health by addressing the individual at all physical, psychological and social levels. Stress affects individuals of all age groups including children and aged, people of all sectors and occupations including doctors. Though many modalities of treatments are available for reducing stress, people are trying to find out some alternative to be relieved from stress without medications. Through research studies yoga has been proved to be effective in many of the physical and psychological ailments.

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TRADE MARK AN EVOLUTIONARY BRANDING APPROACH FOR BUSINESS-AN ANALYSIS OF TRADE MARK IN TERMS OF ADVANTAGE AND DISADVANTAGE TO BUSINESS

Dr Roshan K

Assistant Professor

Government First Grade College, Holenarsipura

ABSTRACT

As business evolved from time long back in terms of magnitude and longitude of products, services, brands, multi- brands of the same business houses. There arised an opportunity for the business to get identified uniquely. Which could create mark in the consumers mind. The concept of trade mark was thus born in 1875 and registered under first trade mark act as "Red triangle" for the product beer. There after the concept of trade mark evolved for business and their products and services. This theoretical paper tries to explain the concept of trade mark, its advantage and dis advantage to a business firm.

Keywords : Trade mark, definition, types, definition.

Introduction- Any business organization's success depends on its profitability and the ability to enhance the shareholder's values; the brands play a big role in it. Like fixed and current assets of an organization, brand also has its value called brand equity, So in India legal protection for trademarks came into practice with Trade Marks Act, 1940, followed by Trade and Merchandise Act, 1958 and with developments in the international level, the Trade Marks Act,1999 came, which exists now.A trademark can be any word, phrase, symbol, design, or a combination of these things that identifies your goods or services. It's how customers recognize you in the marketplace and distinguish you from your competitors.

The word "trademark" can refer to both trademarks and service marks. A **trademark** is used for goods, while a service mark is used for services.

A trademark can be-

- Identifies the source of your goods or services.
- Provides legal protection for your brand.
- Helps you guard against counterfeiting and fraud.

But a common misconception is that having a trademark means you legally own a particular word or phrase and can prevent others from using it. However, you don't have rights to the word or phrase in general, only to how that word or phrase is used with your specific goods or services.

For example, let's say you use a logo as a trademark for your small woodworking business to identify and distinguish your goods or services from others in the woodworking field. This doesn't mean you can stop others from using a similar logo for non-woodworking related goods or services.

Another common misconception is believing that choosing a trademark that merely describes your goods or services is effective

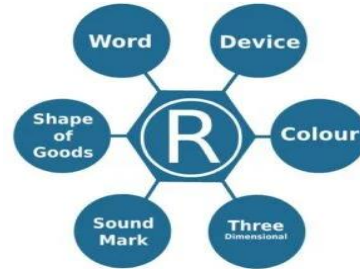
So we can define a trade mark from the above that-

A **trademark** is a type of intellectual property consisting of a recognizable sign, design, or expression that identifies products or services from a particular source and distinguishes them from others. The trademark owner can be an individual, business organization, or any legal entity. A trademark may be located on a package, a label, a voucher, or on the product itself.

The trade mark act of 1999 of India defines - A trademark is a word, phrase, symbol, or design that helps distinguish the source of the goods of one party/organisation from that of others. The term Trademark is defined in section 2(zb) of the Trademarks Act, 1999, which mean a mark capable of graphical representation that can distinguish goods or services of one person from those of others. It is further provided that a Trademark may include the shape of goods, their packaging and a combination of colours.

Types of trade marks in India-

We have understood the meaning of the term Mark and Trademark in the above sections. Now let's understand various Trademark categories that can be registered under the Trademarks Act, 1999. From the practical point of view, while filing the trademark application in TM-A (Earlier the name of the form was TM-1), the prescribed form for filing a trademark application in India, the applicant has to choose, category of Trademark, which can be only from below options. We would be described with illustration only about the below significant types of the Trademark.



Word" as Trademark

A word or other groupings of letters/ alphabets is the most common type of mark. Examples include APPLE, GOOGLE, INFOSYS, TATA, IBM, .etc. The Word Mark as a Trademark is the most valuable and significant; a word work can be written, drawn, and pronounced. Because of its greater versatility is considered the Most Powerful Mark for IPR Protection Under the Trademark Act, 1999. When a Trademark is applied as a wordmark, you can use it in any format in the market. If some other person using a similar mark, the owner of the wordmark can easily institute an action of infringement. Please note that a Wordmark need not have a meaning, and any combination of letters is good enough provided it is unique.

Device" as Trademark

Device marks are in general referred to the marks like Logo, Pictures of Drawings, A combination of Pictures and Words or Drawings, etc. Below is a pictorial presentation on various kinds of device marks. Another example of a device mark is the Brand Name, which is sometimes created as a combination of image and words. Below are some examples of the Device Mark.



Colour" as Trademark

The particular colour or combination of colour is recognised as a trademark if it is established that the colour (s) function as a unique identifying mark to identify the origin of goods or services. In recent times there is a growing trend of adopting colours or combining them as a trademark in the marketplace. However, it is probably the most challenging trademark category to be protected under law and enforced. The world trade organisation has broadened the legal definition of a trademark to encompass "any sign...capable of distinguishing the goods or services of one undertaking from those of other undertakings." Section 10 of the Trademark provides for recognition of a trademark having protection to its colour as property, provided that the particular colour or a combination of several colours are an inherent part of the Trademark. In other words, the Registration to a Colour Mark is granted once the Trademark gets public recognition by that colour.

Shape of goods” as Trademark

The shape of a product or the shape of a container may serve to identify the origin of goods. The shape of a container may also be another form of intellectual property as design. The trademark refers to the origin of the goods, whereas the design protection shall refer to the inherent features of the shape. However, if the shape has acquired distinctiveness through its widespread usage, then the same can be registered as a trademark. A perfect example to understand this is the Coca-Cola Bottle.



Sound as Trademark

Sound marks are a non-conventional trademark and are possible to be registered in India, provided the sound functions as an identifier for the origin of goods or services. The important ingredient is the presence of factual distinctiveness in the sound which is capable of creating an immediate recall value for the product or services. Some of the registered sound marks in India are:

Yahoo -(Human voice yodelling Yahoo)

National Stock Exchange – (Theme song)

ICICI Bank – (Corporate jingle – DhinChikDhinChik)

Britannia Industries (Four note bell sound)

Cisco – (Tune heard on logging in to the conferencing service Web Ex)

Edgar Rice Burroughs – (Tarzan Yell by its toy action figure)

Nokia – (Guitar notes on switching on the device)

Three dimensional shape as Trademark

Three-dimensional symbols can be registered as a trademark in India based on strict standards on the inherent distinctiveness of trademarks and its capability to distinctly identify the origin of goods and services. The three-dimensional trademarks (3D trademarks) are usually presented as the physical appearance of the product or substantial packaging in three-dimensional images. The examples of 3D Trademark is as under



Importance of Trademark

If you want your corporation, brand, product, or service to stand out from the crowd, you'll need to register a trademark. By registering your trademark, you assure that no one else is imitating your goods or service on the market, removing the need to rebrand.

Furthermore, if you want to protect your intellectual property and guarantee your rights, you must register a trademark in India.

There are certain advantages of trademark registration in India that are as follows:-

Exclusive Rights-

A registered trademark belongs to the person who owns it. The proprietor can use the same trademark for all other items that fall under the application's class(es). The proprietor also has exclusive control of the trademark and can prohibit anyone from using it in the class(es) in which it is registered. It also gives the owner the ability to sue anybody who infringes on his or her property without permission.

Builds Worth and Loyalty-

Trademarks represent a products or service's reputation and quality. Customers in the market get confidence and recognition by registering a trademark. It also helps you build a loyal and long-term customer base who will consistently choose your trademarked brand over others.

Distinguishes Brands-

Customers will have an easier time finding your items if you register your trademark. It sets your product or service out from the competition while also serving as an

efficient advertising tool. Furthermore, your trademark or logo indicates your company's vision, quality, and unique characteristics.

Identifies the quality of a product-

Trademark registration provides physical confirmation of the value and quality of your product or service. This is because buyers link a trademark with the quality of a service or product. Furthermore, this awareness benefits in acquiring new clients who mistakenly distinguish the quality of a service or product based on its logo.

Asset Development-

The registration of a trademark gives a corporation intellectual property. Trademark registration is a legal right that can be purchased, assigned, franchised, or commercially contracted. Furthermore, a trademark functions as an intangible asset in a company's balance sheet, providing all of the benefits associated with such assets.

Use of the ® Symbol Is Legal-

When a trademark is registered, you may include the ® sign in your logo to show that it is a registered TM and that no one else can use it. If someone else uses your trademark without your permission, you can prosecute them in court for such flagrant infringement of your exclusive rights of use.

Protection from Infringement-

If someone utilizes a trademark without the owner's permission or in a deceptive manner, the owner can seek an injunction to prevent the person from using the brand without permission. Your trademarked logo cannot be used by anyone else, including rivals.

Ten Years of Low-Cost Protection-

Enrolling in a trademark helps your organisation to keep a distinct identity at a minimal cost. Maintaining a trademark registration online is simple and inexpensive. Similarly, all you have to do to register a trademark is pay the protection charge and the renewal cost, which is required after ten years of trademark enrolment.

Registration of Global Trademarks-

If you wish to grow outside of India or just register a trademark in another country, don't worry; a trademark that has previously been registered in India may serve as a strong basis for gaining worldwide recognition. Because of all the goodwill accumulated, a trademark that has previously been registered in India can be utilised as the foundation for registration in another nation.

Recruiting Human Resources-

Young talent is known to be attracted to well-known businesses. Furthermore, young people prefer to work for major firms since they provide better benefits and salary security. Trademark registration provides a favourable image of a company. Furthermore, this lowers the cost of recruiting and other associated activities.

Disadvantages of Trade Marks-

Trade Mark Classes Cannot Be Altered-

One key difficulty with trademarks is that you cannot alter trade mark classes. When applying for a trade mark, you must choose trade mark classes relevant to your goods and services. This is an important process because it determines the scope of protection for your trade mark. However, it is important to note that you cannot add more classes to your trade mark once you have made your trade mark application. Instead, you would need to make an entirely new trade mark application. If you are unsure about your business's direction, it may be difficult to determine the relevant trade mark classes at the time of your application. This is one potential disadvantage of trade marks.

Difficulty with Litigation-

Another key difficulty with trademarks is litigation issues. If you consider that somebody has infringed on your trade mark, it will be up to you to enforce your rights. This may include sending a cease and desist letter. In instances where such measures are unsuccessful, you will need to pursue legal action. This can be time consuming and

expensive, which becomes more difficult because trade mark litigation is largely subjective. This is because the issue of whether two trademarks are deceptively similar is ultimately a subjective matter, which means pursuing trade mark litigation can be difficult.

Renewals-

The process of trade mark renewals is another potential downside to a trade mark. Trade mark renewals are quite regular when compared to other types of IP protection. You must renew trademarks every 10 years, at which time you will need to pay renewal fees for each class you hold. While 10 years might seem like a long period of time, this can be very costly, particularly for businesses with large trade mark portfolios. Failure to renew your trade marks on time will result in removal of your trade marks from the trade mark register. This makes it crucial that you stay on top of your trade mark renewals.

Protection Limitations-

Another major disadvantage to trade marks is the limited protection that it provides. The very purpose of trademarks is to protect the brand of your goods and services. This means that trademarks do not protect your goods or services themselves – instead, trademarks only protect the associated marketing. While the protection of your marketing is still a critical aspect, for many businesses, it means many other businesses will need to also seek other types of IP.

For example, you may need to obtain a patent if you have designed a process or have a new invention. Unfortunately, trademarks are not always sufficient protection.

Risk of Being Genericised-

While often only in extreme cases, well-known trademarks do become at risk of being genericised. This refers to the process where consumers associate the brand of products with the item itself. For example, ‘Sharpie’ has become a commonly used term for all markers, and ‘Google’ has become synonymous with search engine. This typically happens when a product has substantial dominance in the market, which is usually a good sign. However, it places the trade mark at risk of losing its legal protection. Trade mark owners at risk of genericisation instead need to take measures to reduce the risk of this occurring, such as by educating their consumers on the proper use of their trade mark.

Some trademark infringement cases from consumer goods sector which shows the significance of trade mark for a business house

J. R. KAPOOR v/s MICRONIX INDIA

Micronix India, the plaintiff in this case, were the original registered proprietors of the trademark MICRONIX and had a distinctive logo comprising of the letters “IM” which was used by them in the course of their business operations involving electrical and electronic products. J.R. Kapoor, the defendant, was a partner of this firm, which was dissolved in 1992. As per the settlement between the parties, the plaintiff retained the rights concerning the mark MICRONIX and the logo “IM”. Kapoor, thereafter, started his own business of manufacturing and selling similar products, and adopted as his trademark the word MICROTEL and a stylised rendering of the letter “M” as his logo.

This was considered as to be an invasion of the proprietary rights of their mark and logo by MICRONIX and they were successful in obtaining an interim injunction against the defendant before a single judge of the Delhi High Court. The defendant’s appeal against the injunction before a division bench of the same court was also dismissed. Kapoor, then appealed to the Supreme Court who found substance in Kapoor’s case. In this particular instance, the court observed, once the word “microwas detached from the competing marks, the letters NIX and TEL, the residuals of these marks, possessed sufficient distinguishing elements to prevent confusion among the consumers. The judgment declared: “micro-chip” technology being the base of many products, the word ‘Micro’ has much relevance in describing the products. Further, the word ‘micro’ being descriptive of the micro technology used for production of many electronic goods which daily come to the market, no one can claim a monopoly over the use of the said word. Anyone producing any product with the use

of microchip technology would be justified in using the said word as a prefix to his trade name. Further, those who are familiar with the use of electronic goods know well and are not likely to be misguided or confused merely by the prefix ‘micro’ in the trade name.”

GLUCOVITA v/s GLUVITA

Shangrila food products limited had applied for registration of the mark “Gluvita” for biscuits manufactured by them. Corn products who had been already using their mark “Glucovita” for their glucose with vitamins, opposed the application of Shangrila. It was observed that, Glucovita had acquired a reputation amongst the buying public, the products concerned were so connected as to create confusion or deception due to similarity of the two trademarks, apart from the syllable “co”, the two marks were identical. Finally, it was concluded that “Gluvita” cannot be registered.

FEVICOL v/s TREVICOL

Fevicol has been in the market since 1960 and the trade mark was registered in that year too. It had huge sales and the company Pidilite had spent a good amount of money on the advertising and publicity for the brand. Pidilite files a suit against the owners of Trevicol, a similar product. Use of Trevicol trademark started in 1985. This suit was filed in 1987.

The suffix “vicol” was common in the two marks. Only prefix varied – “fe” and “tre”. However while pronouncing the two as a whole, they sounded quite similar. The company names – Pidilite and Mitees, were put in identical settings. The writing style of the two marks were almost similar, being in blue colour. The Fevicol mark has two elephants pulling apart a sphere, in Trevicol there were two ships in place of the elephants. The purchasers of both these products included a large section of illiterate population like carpenters or civil contractors.

In view of the above, and the provisions, the judgment was concluded as:

The two marks were deceptively similar, both phonetically and visually. The colour scheme and the get-up of the packs were almost identical, and the general public were likely to be deceived. Fevicol won the case

Conclusion-

As a result, trademarks can be considered to be a beneficial tool for encouraging economic growth because they help to generate value and surplus in the economy. Trademark legislation safeguarding a positive-image brand will result in high earnings and value addition, contributing to the country’s GDP. As a result of a well-established trademark legislation, as well as proper awareness and execution in the market, Indian industries have expanded not only domestically, but also worldwide. People nowadays associate every well-known brand with its sign or emblem, placing their trust in that company prior to engaging in any type of transaction. This benefits not just the company providing the goods and services, but it also helps others.

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CRIMINOLOGICAL EDUCATION AND ITS TREND IN INDIA: A THEORETICAL VIEW

Dr. Rufus Devairakkam

Assistant Professor, Department of Criminology, Sardar Patel University of Police, Security and Criminal Justice-Jodhpur | Email: rufusdeva@policeuniversity.ac.in

Shayana T K

ICSSR Fellow (PhD Scholar), Department of Criminology, Sardar Patel University of Police, Security and Criminal Justice-Jodhpur | Email: shayanatkyethadka@gmail.com

ABSTRACT

Criminological education is one among the several filed of studies to examine the varied dimension of society in connection with the crimes, such as crime and society, crime in cyber space, politics and crime, crime in the context of environment and technology, gender and crime, criminal behavior, impacts of crime, victims of crime, etc. As an acknowledged scholarly field, the domain 'Criminology' is essentially a wider multi-disciplinary field of inquiry extended its scope in the entirety of understanding criminal factors including social, psychological, economic factors. This domain extends its scope in understanding the existing legal jurisprudence's efficiency and sufficiency to deal the present-day crime scenario, modern crime prevention techniques, principles of forensic science to weigh the physical evidence. Influence of technology on crime, assistance to crime victims, and so on. The modern and extended version of criminological education is designated by the field experts as crime science, which specially focusing on crime detection and prevention using scientific methodologies. With this background, the author of the present theoretical paper has the primary objectives of disseminating the nature and scope of criminological education and the role of criminologists to the awareness of multi-disciplinary researchers, and examining the challenges and key trends in criminological studies.

Keywords: Criminology, Crime, Criminological Education, Criminal Justice, Challenges, Trends

Introduction

Many of us know that the concept of crime is fundamental to the study of criminal behavior (Reid,2011) or criminological education. Crime is a complex and dynamic concept to define. The Emile Durkheim's sharp understanding of crime obliged him to describe that 'crime is inevitable and universal'. He uttered clearly that there is no society without crime. Thus, studying crime has become significant in the history of criminological studies. Edwin H.Sutherland regards the domain criminology as the body of knowledge encompassing the process of making laws, of breaking laws, and of reacting towards the breaking of laws(Siejel,2006; Qadri,2018).While tracing the origin of criminology dates back to eighteenth century, many early contributors of criminology can also be related to sociology, psychology and political science or many were practitioners from different fields of criminal justice.

An eminent anthropologist Paul Topinard firstly used a comparable word to 'Criminology', i.e *Criminologie*, in 1887 in a journal's article titled by 'Criminal anthropology'. It is also evident from the literatures that professor Raffaele Garofolo presented the term '*Criminologia*' in Italian language as equivalent to the term 'Criminology' in 1885(Wilson,2015; Souvignet, 2021; also cited by Rufus & Shayana,2013; Sociology and Criminology,n.d.;Kaur,n.d.).United States history of sociology kept that crime and deviance

were the integral components of its social science viewpoint(Short Jr & Hughes,2013). Criminology is believed to be a domain which has separated from Sociology(Savelsberg & Sampson 2002, p. 101). Hence, it has been said as sub-divison of Sociology(Nirmala,2009), which continues to be central to criminology((Short Jr & Hughes,2013). In reality, the same relations considered earlier is no longer existing now as Criminology has emerged as a unique multi-disciplinary discipline. Few says that criminological studies are the scientific explorations of the law enforcement and criminal justice systems. Basically, criminology or criminological education is the systematic study crime in all its aspects. Criminological education comprises both the scientific principles and approaches and humanities perspective while researching the crimes. Hence, criminology includes both science and humanities (Kaur,n.d.).

Criminological Education: A Multi-disciplinary Education

Evolving Criminological education is considered to be ocean (Rufus& Shayana,2023), as the domain includes various sorts of fields in its teaching and research boundaries. While saying Criminological education, for the purpose of this paper it may predominantly include the domains Criminology, Criminal Justice (CJ). CJ Science, CJ Administration, Criminology and Police Administration, Criminology and Forensic Science, Crime Science. Today's criminological education has intertwining connection with the terms criminology, criminal justice and crime science. According to Cockbain and Laycock(2017, crime science is a wider concept that intersecting with environmental and experimental criminology. Typically crime science uses scientific methods to crime prevention and crime deduction, and one can say crime science, simply purposes to solve the crimes in scientific ways. Similarly, though overlapping between criminal justice and criminology is a fact, the study of criminal justice refers imposing solutions to prevent crime, detecting and treating criminals who are threatening human society. According to St.John(2024), Criminal justice means the interdisciplinary study of law enforcement, correctional institutions and court systems, while the criminology studies the criminal behaviours and motivations. Another domain of Criminological education that too sounds similar to criminology is criminalistics. The basis of criminalistics is natural science, while criminology is mostly believed to be a social science. Criminalistics involves analysis of physical evidences found and collected from crime scenes (Goodwin,n.d.).

Nature of Criminological Education

Criminological education discovers extend of crime in society; Criminology as a discipline possess and continuously develops sufficient theoretical base for the domain across other domains; It includes systematic and scientific characteristics in its growth; Criminological educations are basically interdisciplinary or multi-disciplinary; It encourages dynamic, reforming and contentious approach to solving the crimes, treating the criminals, assisting the victims and guiding the CJS practitioners.(Nirmala, 2009;Rufus & Shayana,2023).It embraces survey methods, case study methods, and experimental methods to understand the criminal behaviour(Kaur,n.d.), crime trends, criminal justice system's responses, etc. Criminology is regarded as applied science (Nirmala,2009; Hosaaain,2022), as its theory and research findings are applied in criminal justice practice.

Scope of Criminological Education

The criminological domains have a well-rounded theoretical and functional (i.e., application oriented) scope (Rufus & Shayana,2023). Theoretical scope refers its knowledge connection with other domains knowledge such as law, sociology, psychology, penology, victimology, political science, economics, biology, forensic science/criminalistics, medicine, engineering, information technology, etc. Functional scope refers all sort application of criminological knowledge by the CJS practitioners, academicians, public, policy makers, etc.

Criminological Education and Institutions in India

According to Collegedunia(n.d.) website, near about half of the Indian states are offering criminology courses at least in one institution either from government or private.

These institutions include both universities and colleges. The courses are offered at various level of programs across these institutions such as UG programs, PG programs, Diploma programs, Research Degrees. Renowned universities including Dr.H.S.Gour University-Sagar, University of Madras, NICFS presently NFSU-NICFS Campus-New Delhi, Guru Gobind Singh Indraprastha University-Delhi, Manonmaniam Sundaranar University-Tirunelveli, Karnataka University-Dharward, SPUP-Jodhpur, RRU- Ahmedabad, RSU-Jharkhand, National Law University-Delhi and many other institutions are offering criminological courses. Private Universities for example, Karunya Institute of Technology-Coimbatore, Srinivas University-Mangaluru etc are pioneer in encouraging criminology discipline from private university sectors. Some institutes including Madras university, Manonmaniam Sundaran University, and Tamil Nadu Open University are offering criminology programs in distance education as well. Not-for-Profit Academic Institution such as International Institute of Justice and Police Science -Bengaluru offers Advanced Certificate & Diploma Programs including Criminology & Criminal Justice, Criminal Justice Policy, Cyber Criminology, etc.

Trends in Criminological Studies

The present trend of criminological education appears to pursuit for the researchers and policy makers or criminal justice practitioners who advance the empirical and scientific researches in policy and practice decision (Blomberg,2019). Evident to this, the specialized universities which have been introduced a decade back, such as Sardar Patel University of Police, Security and Criminal Justice-Jodhpur(SPUP), Jharkhand Raksha Sakthi University(JRSU), Rashtriya Raksha University(RRU), Jharkhand Raksha Shakti University-Ranchi, and National Forensic Sciences University-NFSU(Rufus & Shayana,2023)are bringing the new dimension of criminological education that brings together the criminal justice practitioners, forensic scientist and academic researcher on one platform.

The current trend in criminological studies is towards an interdisciplinary approach. Although early criminological developments majorly intersected with sociology, psychology, law, forensic science etc., the complex issues surrounding crime and justice require today's criminology to be integrated with other studies too, such as data science, data analytics, cyber security, and international relations. Rising cybercrimes connects criminological trends in the direction of digital forensics and analyzing the impact of cybercrimes. Followingly, the impact of globalization makes it mandate that the criminological researchers to focus on transnational organized crimes. Community based engagement in crime prevention is also an important inclination today. Social justice and equity-based approach encourage the criminological education to emphasize inequity and systemic biases in society and criminal justice.

Criminological Education's Trend in India

Kethineni and Cao (2017) pointed out that academic criminology is massively progressing in India in terms of increasing number of institutions, programs, academic journals and professional societies within the last six decades. To understand the core of contemporary criminological researches in India, a ariel view done by the present author, of academic research related online platforms such as Shodhganga, Academia & ResearchGate revealed the following popular areas, but not limited to these: Criminal profiling (Sexual/Violent/Homicide/Cyber offenders/repeat/paedophile offenders, etc), Sexual offences(Victims of children, women, elderly, transgender, sexual abuse, sexual harassment, etc), Cyber criminals and cyber victimization(all form of offences, especially financial, sexual, hate crimes, honour crimes, impact on victims, impact on the society, cyber awareness, cyber security etc), criminological forecasting and crime control (crime prevention techniques, community engagement, role of technology, data analytics, data science, etc), Criminal justice agencies(effectiveness of CJS, implementation of law, problems and challenges, coordination among CJS, use of technology, mental health problems, relationship with victim/offender/community, etc), Internal security (Terrorism, Naxalism,

Challenges to armed forces, radicalisation, etc), Environmental crimes(Green criminology, wild life crimes, drug trafficking, human trafficking, cyber terrorism, etc), prisoners/prison officers (mental health problems, reformation and rehabilitation, open air prisons, etc), Narcotic crimes (drug abuse, youth and children, drug trafficking, mental health issues, impact on society, challenges to law enforcement officers, victim rehabilitation, etc), victimology (victim assistance, restorative justice, compensation, treatment of victims, rehabilitation, compensation, fear of crime, impact of victimization, etc).

Though many researches on AI are on pipeline, the academic discussions on seminar and conferences in India reveals the interest of criminological researchers and criminal justice practitioners exists to pursue studies in the areas of AIs uses in investigation/ crime prevention, adjudication, Misuse or abuse of AI technology, AI and ethical implications, etc. Illustration of recent research works are 'AI and CJS in India' (Das & Bahattacharya, 2023), 'Impact Of AI in The Current Era of Criminal Justice System of India'(Thoudam & Dev,2023) and so on.

Challenges for Criminological Education

While studying the complex crime problems, passion and objectivity are coming under question. Maintaining passion and objectivity is a challenge. Similarly ethical implication in criminological researches put certain obstacles while studying the facets of crime in the contexts such as children, gender, social identity. Secondly, ensuring all the ethical criteria such as informed consent, minimizing or no harm, privacy and confidentiality principles make the criminological researchers to hesitate in studying the problems. Navigating bureaucratic process in obtaining permission for conducting criminal justice studies is time-consuming and frustrating one. For example, if a criminological researcher wants to study the prisoners problems inside the prison, obtaining permission will be a challenging tasks as equal as doing the research.

In their chapter, Rufus & Shayana(2023) listed out the challenges for criminological education in India. The challenges are limited institutions with sufficient infrastructure to offer education, inadequacy of qualified youth with thorough criminological skills to meet the job market's requirement, insufficient data or data resistance from the concerned agencies which hindrances one from deeply understanding the criminological or criminal justice problems, dire need of producing quality and skilled criminologists to the society, pressing necessity of empowering the students with practical knowledge, insufficient use of educational technology, inadequate application of instructional technology and so on.

Conclusion

Criminological education is commonly adopting its nature according to the social need and crime trend changes. Thus, it is a dynamic education. In view of the increasing crime trends that use crime technology, it becomes more significant that both academic criminologist and criminal justice practitioners should be sufficiently well informed and practically prepared. For achieving this goal, optimum utilization of educational technology is essential through bringing educationist, criminologist and criminal justice practitioners together. Indian criminological education is progressing in such direction. Integrating educational experts, technological experts, criminologists and criminal justice practitioners will certainly make the criminological education a further more interesting domain. It can also help CJS practitioners to solve many modern and technology-based crimes in speedy manner, if they are trained with such and such quality criminological education.

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TECHNOLOGY ENHANCES THE PHYSICAL EDUCATION CURRICULUM

Sathish.B.P

Physical Education Director
Govt First Grade College, Bangarpet, Kolar(D)

ABSTRACT

Physical education is seen as an essential subject for the development of healthy habits and well-being, in line with Sustainable Development Goal 3. Furthermore, the impact of technology on all aspects of life is now an undeniable reality. The field of education is no exception, and digitalisation has undoubtedly been accelerated by the emergency situation resulting from the COVID-19 pandemic. This paper aims to analyse the scientific production related to the field of physical education, technology, and the pandemic from a double perspective. From a search in Scopus, 86 articles were selected for analysis. A bibliometric approach was used to identify the variables of impact, collaboration, production, and dissemination. While the content analysis allowed us to delve deeper into the topics most frequently chosen by researchers, we found that the articles focused both on the circumstances experienced by practising teachers and on the adaptations made in the teaching/learning process with trainee teachers and students at different stages of education. Thus, technology has emerged as a fundamental tool in physical education during the pandemic, making it possible to develop or maintain better health and learning.

Keywords: technology, pandemic, physical education

Introduction

Technology can be useful at enhancing teaching and learning in physical education by increasing physical activity (PA) levels (Melton et al., 2015), motivation (Melton et al., 2015) and motor performance (O'Loughlin et al., 2013). Technology use in physical education focusing on content knowledge can provide context for PE lessons, leading to a motivating learning environment for students (Østerlie, & Mehus, 2020). Considerable research on technology use in physical education has focused on wearable digital technologies, mobile devices, computers, video, and recently app-based software (Bodsworth & Goodyear, 2017; Lee & Gao, 2020). Physical educators also often use technology for teacher productivity such as websites and e-documents (Baek et al., 2018).

Many teachers, even though tech savvy, may lack pedagogical skills necessary to integrate technology into their curriculum and instruction effectively. Barriers to technology use in physical education include familiarity with technology use for learning (Bodsworth & Goodyear, 2017), pedagogical knowledge and beliefs of the teacher (Baek et al., 2018), and student content knowledge.

Technology alone should not be thought of as a standalone strategy or focal point of instruction, but rather, it should aid the learning process (Sinelekov, 2012). Specific teaching strategies to accompany technology can be helpful for teachers to ensure efficacy. Below are five research-based strategies that can be applied by teachers looking to integrate technology to enhance their teaching.



- Avoid integrating new technology and new content at the same time.
- Technology should be integrated within an autonomy-supportive environment.
- Goal setting and individualization should accompany fitness tracking
- Use technology in physical education to promote student-centered learning
- Technology use in physical education can be useful in building motor skills

1) Avoid integrating new technology and new content at the same time.

Researchers found it difficult when students had to learn both new technology and pedagogical approach at the same time (Bodsworth & Goodyear, 2017). It is recommended that teachers focus on one at a time, either a new teaching strategy, or new technology.

For example, a teacher can focus on teaching the cognitive and psychomotor learning domains at the beginning of the year, such as the critical elements of resistance training movements (i.e. squat, press, hinge), and principles of training (i.e. frequency, overload, progression, etc.) in a traditional manner. After the students have demonstrated that they can perform the movements correctly and understand the principles of training, completed baseline fitness testing, a technology tool such as PLT4M can be introduced to streamline the delivery of exercise routines in class.

Technology use in physical education could also be taught before a new teaching strategy, in that, students can be introduced to PLT4M and its basic features (i.e. school news, exercises, and workouts) before content is delivered through the app. Students become familiar with how to search for exercises and where to access course content, and the technology can be a vehicle through which instruction and learning can take place. When a new teaching strategy and technology are taught one at a time, the learning process can be more efficient, likely leading to less frustration for both teachers and students.



2) Technology should be integrated within an autonomy-supportive environment.

For effective integration of technology use in physical education, it is recommended to be done in an autonomy-supportive environment (Østerlie and Mehus, 2020). Autonomy refers to doing a task or activity under one's own volition or choice, and when this psychological need is not met, intrinsic motivation can be hindered.

For example, students could be provided the choice of which workout program to access within PLT4M. There could be varying intensities of the same program, students could self-evaluate their readiness based on sleep, mood, stress, and choose an appropriate workout to match their needs that day. This provides an opportunity for teachers to teach the effects of stress and the importance of adjusting exercise accordingly. Students in this scenario can apply their knowledge about training principles to understand what restorative exercise modalities, volumes, and intensities are. Duplicating and modifying programs in PLT4M is easy and can be done by simply reducing volumes and intensities and substituting exercises.

After completing introductory workout programs through the PLT4M app, a teacher can assign a project where students create their own exercise program, applying the principles of training appropriately based on their individual training status, goals, and preferences. Whether in-class or outside of the school day, students can access the instructional videos to learn new exercises and incorporate them in their routine. Ultimately, technology is a vehicle to help deliver meaningful learning experiences, and PLT4M can be used as such to have students create their own training program.

3) Goal setting and individualization should accompany fitness tracking.

It should be noted that tracking/monitoring of activity (i.e. pedometers) related to health-related fitness may not necessarily increase intrinsic motivation (Haslem et al., 2016). Personalized goal-setting strategies should be coupled with pedometers to promote a positive effect on motivation (Gu et al., 2018, Fröberg&Raustorp, 2019).

In PLT4M, students have access to their personal fitness record and can see progress. This information can be useful at promoting self-efficacy when goal setting accompanies the tracking of fitness records. Stand-alone fitness tracking works best when accompanied by individual goals. Additionally, use of pedometers and heart rate monitors can be effective when done in an individualized manner.



For example, when target heart rate zones are used through heart rate monitors, students can engage in the intensity of exercise that is specific to them. One elementary teacher in Los Alamos, New Mexico, uses heart rate monitors with their elementary students and projects the heart rates in real time on a large screen so they can have instant feedback if they are working too hard or too light based on the training zones.

4) Use technology in physical education to promote student-centered learning.

Many teachers can use technology to quickly deliver assessments and surveys. For example, a teacher can create a formative pre-assessment or a practice test on Google Forms and share the link with students. A teacher can also post the link to a pre-assessment, survey, or practice test in the school news feature on the PLT4M app and all students can simply click the link and complete the assignment. The tests/surveys completed in Google Forms are automatically graded and teachers can see data quickly.

Additionally, to create a student-centered PE program, teachers can create a questionnaire for all incoming or returning high school students about their interests regarding physical activity so that curricular designs offered can include learning experiences in line with what students are interested in learning about. Communication technology can also be used to stimulate community involvement.

Communication Via Technology

Teachers can communicate home and connect with families through email to keep students' families up to date about the current happenings in PE and how they can support their students learning. Also, email communication home can be a chance for teachers to promote community based events such as a walk-a-thon, back to school night, family yoga night, etc.

Local community members in the health and fitness sector can be incorporated into the learning experiences of PE class by being a guest instructor or donating equipment, technology can help recruit such individuals. Many school websites provide teachers with their own platform to post materials about their class and program. Communication to the community and students' home can be done through their school websites, regular email newsletters, or social media (i.e. twitter). This will help PE teachers advocate and build their programs with the involvement of the community, enhancing the health and fitness experiences for all involved.

5) Technology use in physical education can be useful in building motor skills.

Video capabilities on iPad have been shown to promote learning within PE. Self-assessment and peer assessments has been shown to be enhanced through the use of video analysis (O'loughlin et al., 2013). Having students record their performances or skills, or having the teacher individually record skills and using the video for analysis, especially

when compared to an exemplar, can enhance the learning of motor skills. O’loughlin and colleagues (2013) found that video self-assessment was motivating and aided performance in learning basketball skills with elementary age students.

It should be noted that video analysis should be accompanied by teacher guidance through rubrics that provide scaffolding to support student self-assessment and feedback. In another study, Palao and colleagues (2015) found video of student performance and feedback from teacher was more effective than only feedback in learning skills and knowledge related hurdle exercises. The teacher and their employed pedagogical strategies are essential to the efficiency and effectiveness of video analysis of performance by providing scaffolding through rubrics, providing expert feedback, and organizing the activity in an efficient manner.

Key Takeaways on Technology Use In Physical Education

It is recommended to choose technology integration strategies that work best within the context of the PE class and what will provide the most

“bang for buck.” It is better to use a technology consistently throughout the curriculum, rather than in a “one off” fashion. For example, if a teacher is going to use digital video analysis to improve motor skills, it should be a consistent practice for learning and evaluating many skills taught throughout the course of the school year. If a teacher is going to utilize a school website, it should be updated regularly.

Conclusion

Autonomy and equity is important, if students do not have access to certain technology, there should be options for demonstrating learning and accessing course content that does not require technology. For teachers looking to integrate technology, it requires careful planning and time for students to familiarize themselves with the new technology. Sometimes less is more, so having students access course content through one medium will be easier than having to navigate across apps and devices.

The above strategies should not be applied all at once, but rather, these are examples of how PE teachers can improve the teaching and learning experiences of their students, likely leading to a motivating and engaging learning environment. If technology use in physical education is accomplishing neither objective, increasing learning or increasing PA, it should be reconsidered.



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SIGNIFICANCE OF CLASSROOM MANAGEMENT AS AN EMERGING TREND IN HIGHER EDUCATION

Dr. Shashikala N S

Assistant Professor, Dept of History
AVK College for Women, Hassan, Karnataka state
Email id : shashikalans123@gmail.com

ABSTRACT

This paper explores the significance of Classroom management and focuses on application of precise classroom management techniques. Good classroom management is vital components of ensuring students reach their full academic potential. Good Classroom management allows teachers to control the learning capabilities of the student. Good Classroom management offers efficient direction for students inside classroom. Teachers use classroom management to keep students focused on learning and also helps in preventing class room disruption. The most effective teacher typically understands a variety of effective classroom management techniques and use the most appropriate solution to keep their class free of disruption and focused in achieving its educational goals. But teachers face a variety of challenges in classroom management. While some teachers take a direct approach to managing and directing their classrooms, other teachers spotlight on building a responsive, collaborative relationship with their students. But there is a need to adopt a well planned mechanism to keep the class focused.

Key words: higher education, classroom management, significance, emerging trends,

Introduction:

Types of classroom management

1. Focused classroom
2. Distracted classroom

There are differences between a focused classroom and a classroom in which students struggle to achieve their educational objectives. Teachers face a variety of choices towards classroom management. While some teachers take a direct approach to managing and directing their classrooms, other teachers spotlight on building a responsive, collaborative relationship with their students. This type of management will allow learners to focus precisely on lessons.

Benefits of Classroom management – there are several benefits of classroom management

1. **Acceleration of academic achievements** -Effective classroom management is extremely important for ensuring students that they learn in an environment that's free of disturbances and distractions. A good class room management will directly reflect on the acceleration of academic achievements.
2. **Achieving Academic Potential** - Good classroom management is the vital component of ensuring students reaches their full academic potential. Class contains both advanced learners and slow learners. Hence, reaching a variety of learners is a big challenge. A teacher can apply good classroom management to enhance their academic potential.
3. **Improved Academic Results** - When teachers can effectively control the direction and behaviour of students in a classroom, students are likely to achieve improved academic results. This makes an effective classroom management system essential for teachers and students alike. The academic achievements of a student links the academic credentials of institution as well. An institution can gain academic and scholastic recognition and grow as a premier institution.

4. **Focus amplification-** High quality classroom management lets teachers control the direction of their classroom while preventing students from causing disruptions to their peers. This also helps in monitoring the slow learners more clearly. A teacher can apply additional learning resources to slow learners and make them catch up with other advanced learners. This will enable them to learn difficult curriculum concepts more easily and more precisely.

Teachers face a variety of classroom management challenges. A bad classroom management interrupts pace of Learning of students. Disruptive students interrupt the pace of learning of other students in the classroom as well. If not taken seriously, a bad classroom management will lead to worsening student behavior in general. Other teachers also become victim of students' indiscipline and unruliness . It is often observed that ineffective or poorly thought out class room management techniques worsen student behavior and lead to chaos not only in classroom but also in campus. Students are young minds open to embrace the good , bad and the ugly behavior on the influence of their peers. If one student prepares to indiscipline behavior other students also follow him. A class room becomes a chaotic place and the teacher fails to address the challenges even after several sincere attempts. In the end , the Institution also suffers because the credentials of the institution are at stake.

Classroom management – emerging new trends- Classroom management is reflected through teachers' use of learning resources appropriately . The teachers can apply simple techniques such as have to speak in complete sentences and address one another by name, demonstrating mutual respect and common courtesy. Sometimes classrooms are brim with students and teachers will not remember students names even after the end of academic year. Learners are taught thoroughly Learners are taught to mastery, insuring success for all. They can listed as under

1.	Role of group discussion
2.	Role of integration
3.	Role of friendly atmosphere creation
4.	Role of best practices
5.	Role of extra activities
6.	Role of feed backs
7.	Role of establishing guidelines
8.	Role of interaction

1. **Role of group discussion-** There is a need for insertion of group discussion. Group discussion needs to be is interwoven with flexible group instruction and individual instruction. Students will discuss about core concepts and come to unfamiliar and varied conclusions. This will help them to express their thoughts and clear their doubts. Students will come up with new questions and learn to answer the questions raised.
2. **Role of integration** - Learning experiences needs to be integrated, this means learning experiences related to the real world have to be unfolded and reviewed consistently, and connected to subsequent curriculum. Students come from various educational, social and economic backgrounds. Critical thinking skills need to be included in every chapter. Students learn to answer queries through critical thinking.
3. **Role of friendly atmosphere creation** - The classroom environment needs to be very friendly and non -threatening. Every teacher needs to review the learning mistakes of the students allow him to grow out of his mistakes and treat his mistakes cordially.
4. **Role of best practices-** A teacher can evolve his own best practices inside a classroom such as arranging memory tests , quiz , recitations , assignment writing , essay writing , project writing , field visits , study tours etc.
5. **Role of extra activities** - A teacher can provide his student with extra insights through activities such as motivating students to write for college /school magazines, departmental newsletters , college pamphlets , college wall magazines, etc. This will

facilitate the student to widen his communication skills. A teacher can stimulate students to involve in extra curricular activities.

6. **Role of feed backs-** A teacher needs to take regular feedback about his co- curricular activities held inside a classroom. This will provide the teacher with supportive reflections on his teaching This will also help in focusing on best practices more regularly.
7. **Role of establishing guidelines-** A teacher needs to establish guidelines for making students feel at ease inside classroom. A teacher can make simple guidelines including eye contact, asking small question about previous class ,interspersing lecture with discussions groups work video segments to encourage involvement and help students connect with the content with real world events and issues.
8. **Role of interaction-** - A teacher needs to consider the role of interaction in classrooms. A students will understand the curriculum concepts clearly if it is taught through interaction and interface communication. This will support in establishing a good academic relation. Students will comprehend the difficult curriculum concepts easily.

Conclusion:- Thus, a thoughtful application of classroom management techniques is one of the key to successful teaching and learning process. Today the young students are open to several bad influences inside and outside their family. Their learning potential is often manipulated by peer forces. Hence, it is necessary to employ a considerate class room management mechanism and stimulate the advanced medium and slow learners to exhibit their academic achievements. This will guide them in right direction also. Thus , only teachers can make a positive difference in the lives of young students. As a mentor and role model , students will be always inspired by the commitment of the teacher towards assisting learners in developing their unique class room management practices.

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STUDY ON CREATIVITY AMONG SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR SCHOLASTIC ACHIEVEMENT

Shilpa K.S.

Research Scholar, CMR University
Bangaluru, Karnataka
Email ID: ksshilpan@gmail.com

ABSTRACT

Creativity is the exclusive characteristic of an individual to create an completely new idea or by the rearrangement of what is already known for a student these terms are significant for understanding his/her interest, skills, and attainment level and contribution ability in society. That is why the study is measured important to understand students in a better way. In the present study aimed at the dissimilarity between Government and Private schools male and female students with creativity with reference to their scholastic achievement. The data were collected from 200 secondary school students from selected secondary schools of Mysore North Zone of Mysore District in Karnataka State. The significances were discussed according to the significant values obtained. Based on these results convinced conclusions were drawn. On over all conduction of the study some educational implications were constructed.

Keywords: Creativity, scholastic achievement, government schools and private schools

Introduction

In a contemporary situation of changing world day by day, children are facing many difficulties in their educational, social, emotional and intellectual lives. Children said to be the richest national resources and to the extent, their multiphase varied creative talent should identify, combined and promoted. Creativity plays a vital role in shaping their behavior. Recognition, inspiration and effective enfoldment and development of creativity of children's through school learning activities will generate inspired environment and raise the status and standard of creativity of children, which in turn, raise the standard of society and nation. So, to understand student's interest level in a better way and to provide a remedy it is imperative to consider creativity for better understanding.

Creativity

Creativity is the capability of an individual to harvest ideas or products of any sort which are fundamentally new & previously unknown to the producer. It is both inborn as well as acquired and a process as well as a product. Every single one of us has different-different power of creativity. Some persons possess high creative talents and contribute to progression in society and assistances in bringing social and cultural changes.

A creative individual is characterized by such cognitive features and personality characters as:

- Different ability & thinking
- Independent judgment capacity
- High feeling tone accompanied with sensitivity and affectivity
- Transformational capability
- Redefining ability
- Expressional fineness
- Impulsive flexibility & adaptability.

AVERILL (2013) well-defined four main criteria of creativity. His description of their dimensions of creativity is as follows;

- a) **Novelty:** it means a new answer compared to individual's previous behavior or in general, associated to normal behavior in a society.
- b) **Effectiveness:** for being original, a response should be possibly helpful for a person or a group.
- c) **Authenticity:** a creative response is reflected in some styles of a discrete values and beliefs about the world. This is measured as a tool itself.
- d) **Preparedness:** its dimension that is stated by AVERILL is similar to WALLACE's creative process.

Need and significance of the study

Very frequently we experience groups of children unenthusiastic, uninterested and underachieving. All this is a result of inappropriate understanding of students, lack of motivation and disinterest in the students. In this, variable creativity which is the imperative aspects of child personality is very helpful for teachers. It is very significant to understand and identify creativity in the overall mechanism of school. School education is the greatest determinant factor in shaping behaviors of students. By understanding the level of creativity of students, suitable measures will be taken for their better scholastic and social life and it will also influence society and nation in a significant way. Thus, it has stimulated the researcher to explore this field. Present study will explore the conditions for enabling the creativity existing in government and private schools of Mysore North Zone of Mysore District.

Reviews of Related Literature

Plentiful research has been conducted to determine how creativity affects scholastic achievement and what causes for low creativity. Studies on level of creativity disclose various viewpoints. Investigators looked into how an individual's upbringing and personality traits affected their level of creativity (Ai,1999; Batey & Furnham,2006). Torrance (1963), Lau and Li (1996), Hoff (2005), Matud, Rodriguez, & Grande (2007), and Ghosh, S.M. (2013) described that there is a considerable difference between boys' and girls' creative talents, though Baer & Kaufman (2008) and Ahuja (2014) found no indication of such a difference. Additional studies by Nautiyal and Negi (2011) and Nazzima and Hummara (2012) found that students in private schools were more creative than those in public schools. However, it seems that both government and private secondary school students are neglecting the subject of creative thinking. Reilly et al (2017) study that Canada for ten years to identify creative teaching and its impact on students and colleagues; revealed that Creative teachers should be aware of this fact and then reflect on their teaching. And Dutta. Jadab & Chetia Pranab (2018), conducted a study on "creativity of secondary school students in Lakhimpur and Sonitpur districts of Assam" findings is there was no significant mean difference on creativity with respect to gender and type of schools of secondary school students of both the districts of Assam.

In this way, the present study aims to compare students from government and private secondary schools in terms of their creativity in relation to their scholastic achievement.

Objectives

1. To study the difference between male and female with reference to creativity of secondary school students in Mysore North Zone.
2. To study the significant difference between students studying in Government and Private secondary schools with reference to their Creativity.
3. To study the significant difference between students studying in Government and Private secondary schools with reference to their Scholastic Achievement.

Hypothesis

1. There is no significant difference between male and female with reference to creativity of secondary school students

2. There is no significant difference between students studying in Government and Private secondary schools with reference to their Creativity.
3. There is no significant difference between students studying in Government and Private secondary schools with reference to their Academic Achievement.

Operational Definition of key terms

- **Creativity** – Creativity refers to the tendency to generate or recognize ideas, alternatives, or possibilities that may be cooperative in solving problems, communicating with others, and entertaining ourselves and others.
- **Scholastic Achievement** – Scholastic achievement signifies performance outcomes that indicate the extent to which a person has talented specific goals that were the emphasis of activities in instructional environments, particularly in schools.
- **Government Schools** – Government schools can be refers to, schools that are run by the government. They are fully or partly funded by the government
- **Private Schools** – A private school is a school not managed by the government; Private schools (also known as 'independent schools'), are schools that are not dependent upon national or local government for fiscal endowment.

Methodology

- **Variables** - the following variable are used for the present study,
 - a) **Dependent variables** - Creativity and Scholastic Achievement
 - b) **Independent variable** – Gender and Types of Schools
- **Design of the study** - The present study is descriptive in nature. It is a survey method were used for collecting data on creativity and their scholastic achievement among secondary school students of Mysore North Zone.
- **Sample and sampling Procedure** - The sample was drawn through Random sampling technique. The researcher selected secondary school students both from Government and Private schools includes of a total 200 students giving equal representation to the schools and gender randomly.
- **Tools used** - the following tool was used for data collection,
 - a) **Creativity** – by Baquer Mehdi
- **Statistical Techniques to analyse the data** - Mean and SD were calculated in descriptive statistics and t-test were used as statistics to examine the hypothesis of the present study.

Analysis and Interpretation of the data

Hypothesis Testing

Objective 1: To study the difference between male and female with reference to creativity of secondary school students in Mysore North Zone.

H₁: There is no significant difference between male and female with reference to Creativity of secondary school students in Mysore North Zone

Table 1

Mean scores of male and female with respect to Creativity

Variable	Gender	N	Mean	SD	Df	t-Value	Result
Creativity	Male	88	45.8	8.93	200	2.68	Significant*
	Female	114	36.4	20.77			

Note. * Significant at 0.01 level

Table 1 specifies that, the obtained t-value 2.68, which is greater than both 0.01 and 0.05 level. So null hypotheses 'There is no significant difference between male and female with reference to creativity of secondary school students in Mysore North Zone are rejected'. It may concluded that there is no difference in Creativity of Male and Female students of secondary schools.

Objective 2: To study the significant difference between students studying in Government and Private secondary schools with reference to their Creativity.

H₂: There is no significant difference between students studying in Government and

Private secondary schools with reference to their Creativity.**Table 2****Mean scores of Government and Private secondary school students with reference to Creativity**

Variable	Type of school	N	Mean	SD	Df	t-value	Result
Creativity	Government	53	19.5	14.0	200	8.19	*Significant
	Private	147	48.02	23.8			

Note. *Significant at 0.01 level

Table 2 shows that, the obtained t-value 8.19 with df 200, which is superior than both 0.01 and 0.05 level. Hence the null hypotheses 'There is no significant difference between students studying in Government and Private secondary schools of Mysore North Zone with reference to their creativity' is rejected. It may be concluded that, Government and Private secondary school students are have creativity is formulated. And result is there is a significant difference between Government (19.5) and Private school students (48.02) in their Creativity, associated to Government schools, Private school students have high level of creativity.

Objective 3: To study the significant difference between students studying in Government and Private secondary schools with reference to their Scholastic Achievement.

H₃: There is no significant difference between students studying in Government and Private secondary schools with reference to their Scholastic Achievement.

Table 3**Mean scores of Government and Private secondary school students with reference to Scholastic Achievement**

Variable	Type of school	N	Mean	SD	Df	t-value	Result
Academic Achievement	Government	53	2.13	126.68	200	4.60	*Significant
	Private	147	3.17	146.20			

Note. *Significant at 0.01 level

Table 3 specifies that, the obtained t-value 4.60 with df 200, which is greater than that of table value at 0.01 and 0.05 level. Hence the null hypotheses 'There is no significant difference between students studying in Government and Private secondary schools with reference to their Scholastic Achievement is rejected'. It may be concluded that Government and Private Schools are have scholastic achievement is formulated. So result is there is a difference in Government and Private schools students in their scholastic achievement.

Findings of the study:

- There is no significant difference between male and female with reference to creativity of secondary school students of Mysore North Zone.
- There is a significant difference between Government (19.5) and Private school students (48.02) in their Creativity, associated to Government schools; Private school students have high level of creativity.
- There is a difference in Government and Private schools students in their academic achievement.

Educational Implications

- [1] Present study can under-taken to study the creativity of secondary schools students in North Zone of Mysore district in order to propose the suitable measure to recover their education level in both government and private schools. Because of the education can increase the creativity level of students.
- [2] In a classroom circumstance, the teacher can inspire the students. It will raise the level of creativity of the students.

- [3] Yoga and meditation can be a fragment of our day to day activities to be included in the school curriculum which can recover the level of creativity of the students.
- [4] A practice of group discussions and other curricular activities can be organized in the classroom. Hence, it will upsurge the creativity of the students.
- [5] The good relationship between teachers and students will surge the level of creativity of the students.
- [6] Numerous programmes like science exhibitions, drawing competition, craft activities, cultural activities will assistance the students to advance their creativity level.
- [7] Field trips and educational tours can be organized by the teachers once in a month or whenever time permits. This experience will associate with the lessons. Hence the students can get a direct and determined experience and it will increase the level of creativity of the students.

Conclusion:

Environment is the powerful aspect for advancing the process of individual's growth and development and the advancement of the society as well. A nation with a vision for the upcoming requires dynamic, creative populations and is required to provide a sympathetic creative environment at home, in the classroom, and across society. Therefore, it is the noble obligation as well as the accountability of all the people who are having concern for the educational process directly or indirectly and for providing satisfactory opportunities to the students for their full creative expression that will eventually results towards better scholastic achievement.

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HISTORICAL VIEWS AND SUSTAINABILITY OF TRADITIONAL SPORTS: A REFLECTION

Shivakumar B.M

*Assistant Professor, Dept of History,
GFGC, Haleyangady, Mangalore, DK*

ABSTRACT

In ancient days sports and traditional games was seen as a recreational or free time activity. In recent centuries sports became a global social and economic activity (Mylik,2014). Today, sports and games are recognized not only for competition but also to improve the relations and promote peace and prosperity. According to Rossi, (2005), indigenous and traditional sports create strong sense of belonging among youth and can improve the wellbeing to communities. It is also benefited a lot to youth in participating such activities. Traditional sports are positively impact on individual's behavior. Most of the traditional and indigenous sports are reflected in several historical scriptures in India. Since traditional sports reflect Indian culture and a kind of stress redemption activity it is very need to sustain those activities for better future. So, the author is trying to highlight the Indian culture of sports and its benefits.

Keywords: *Traditional, Sustainability, Recreation, Prosperity, Indigenous*

Introduction:

India has a vast and unique culture. India became the land of traditional sports like Kushti, Indian Wrestling, Jallikattu, Mallakamba, Gilli-Dandu and many more. India is also known for its diversity, culture and traditions. Most of the traditional sports originated in India and also developed rules and regulations. The traditional and indigenous sports have popularized for thousands of years. Later the popularity has declared because of the growth of Western sports and online gaming. But, in recent years that traditional or indigenous sports are popularizing and highest viewership with career opportunity. People realize the benefit of those sports; the events are providing happiness and create the unity among the communities. The main purpose of this article is to emphasize and acknowledge traditional sports as an important historical and socio-cultural phenomenon. The relevance and importance of traditional sports are to be sustained for better future.

Objectives of the study:

The main objective of the study to analyze the history of the traditional sports, and its importance, need, and sustain those sports for future generation.

Historical views:

The traditional and indigenous sports have their origin in India and are an important part of Indian culture. It may be two different activities one may be indoor and other one outdoor activity. The games played with small area within close environment are indoor, the games played on playground in open area called outdoor activities. The traditional sports activities started for recreational purpose where people can play during leisure time. The main feature of the traditional sports is to have little space and little cost with limited rules.

Most of the traditional and indigenous sports are part of the Indian culture and the symbol of the cultural diversity of our society, especially sports like Kabaddi, kho-kho, Atyapatya etc. In the ancient days sports give the evidences of so many constructive activities in India. The sports culture started from Indus valley civilization and came up to present sports. Ancient Indian history was rich with knowledge of sports and physical activities. The most of the traditional sports events are a kind of religious rites. The well-defined values like the Mantra in Atharva-veda, "duty is my right hand and the fruits of

victory in my left” these words hold the same sentiments as the Olympic Oath “for the honor of my country and glory of sport”.

The traditional and indigenous sports have a major role in Indian culture. Many traditional sports are mentioned in ancient scriptures. The sports activities as per the suitable environment are promoted through generation to generation. In ancient India traditional sports that are played by even every member of the family during free and leisure time. The popular traditional sports are played even today. During epic period one of the great periods in history physical training was given great importance. During the medieval period Rajput Kingdom developed traditional sports like archery, they considered archery element of the martial training. The Muslim ruler had enjoyed outdoor sports as well as the traditional sports like archery, sword grappling etc.

The history of traditional sports in India believed to be the Guru-Shishya relationship. Guru teaches the traditional sports the students. Shishya to continue the activities which lead to physical fitness. In historical period traditional sports are given prime importance to physical fitness and wellbeing. The weapons like bow and arrow, the events like discus throw, javelin throw, wrestling, sword fighting, swimming, boating, horse riding and running are the famous ancient activities.

UNESCO’s agenda 2030 for sustainable development established respect for the environment and sustainability education as key elements for the challenges of society in the coming years. Physical education can have a vital role in sustainability education through traditional sports events. Almost 21 years ago UNESCO (2003) define intangible cultural heritage as “The intangible cultural heritage means the practices, representations, knowledge, skills as well as the instruments and cultural spaces associated there with the communities, group as part of their cultural heritage”. According to Singer, Golinkoff and Hirsh Pasek (2006), playing is learning games like traditional events generally come from survival activities for example hunting, strength, speed, motor skills involved in it. Traditional sports are the part of India’s rich heritage, history and culture.

Importance of traditional sports:

Traditional sports are not only the activity for leisure time, it helps to build physical and mental strength of the individual. It lies in their accessibility and ease of play. Traditional sports became a means of building unity, character and understanding of the true core values of sports as well as healthy physical, psychological and social development.

Traditional sports develop motor skills. It also gives entertainment and plays a great role as stress-redemption activity. The memories of such sports building up relationship with community. Since traditional sports played with natural materials, it is appreciated for the environment friendly nature. It shows the value of each natural things and promote respect for these things. Children exhibit and sharpen mental ability and physical ability by playing traditional sports. Traditional sports are promoting individual skills like confidence, goal setting learning new behavior and acquiring and establishing new relation and skills.

Traditional sports are bringing children and youth together, encouraging teamwork, social interaction, developed coordination, life skills and social relationships which are the most important for every individual in just society. The main importance of traditional sports is to enjoy the victory and success, in the same way face and accept the failure situation in life. It teaches both equally. Since the youth highly involved in computer games, they became prone to various physical and mental disorder. Traditional sports benefited for the growth and development of the health and happiness.



Conclusion:

Traditional and indigenous sports have great role to cultural heritage of the country. These sports need to be popularized not only in India but also globally. The traditional sports should get platform in comparative arena with certain rules and regulation. To sustain the tradition culture there is urgency to promote such sports in future. It is also required more awareness of the sports and its benefits. It is the need of the hour to introduce the importance and its relevance of the traditional sports in school curriculum. So that it may protect our youth for better future and sustained the traditional sports in the Indian culture. To be concluded, it is threat foe traditional sports because of the video gaming and other electronic Gadget games which makes youth as sedentary life. To come out of this it may be strong emphasize traditional sports should be given more encouragement. Traditional sports give pleasure for healthy life and it can be considered as effective tool for fun, pleasure of leisure time as well as the quality life.

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A STUDY ON PERSONALITY DIMENSIONS, ACADEMIC AND SPORTS ACHIEVEMENT OF NATIONAL LEVEL PLAYERS OF KARNATAKA

Shruthi.K.S

*Research Scholar, Karnataka State Akkamahadevi Women's University
Vijayapura, Physical Education Director, BGS College of Engineering & Technologiogy, Bengaluru*

Dr.Hanumanthayya Pujari

*Professor & Research Guide, Dept of Studies in Physical Education & Sports Science,
Karnataka State Akkamahadevi Women's University, Vijayapura*

ABSTRACT

This study aimed to examine whether there are statistically significant differences in personality structure and achievement motivation dimensions between athletes involved in individual and team sports, as well as between recreational and professional athletes. We operationalized personality traits through the Serbian translation of BFI, and the motive for achievement through MOP2002. We conducted cross-sectional research online. The sample consisted of 173 respondents, of which 55.5% were engaged in individual and 29.5% in team sports; 23.1% were professional and 73.4% were recreational athletes. There were 86 men in the sample (49.7%). The mean age of the subjects was 26 ± 7.8 . The results show that athletes engaged in individual and team sports, as well as professional and recreational athletes, don't statistically differ on 5 personality traits ($p > .05$). Athletes playing team sports achieve higher results in orientation towards competition from those playing individual sports ($t(146) = -3.9$; $p < .01$). Athletes playing individual and team sports don't differ in the expression of orientation towards achieving goals, orientation towards planning nor in perseverance in achieving the goal ($p > .05$). Professional athletes have a more pronounced orientation towards competition with others ($t(165) = 3.9$; $p < .01$) and an orientation towards achieving goals ($t(165) = 3.6$; $p < .01$), they are more persistent in achievement of goals ($t(165) = 2.3$; $p < .05$), while the orientation towards planning is equally present in both groups ($t(165) = -.80$; $p > .05$). We can conclude that personality traits are not and the motivation for achievement is in a dependent relationship with the choice of individual or team sport, nor with playing sports professionally or recreationally.

Keywords: *Cognitive Style, Attribution Style, Sensation seeking, Sports Performance*

Introduction

Personality including dimensions of extraversion, Sport psychology has emerged as a field with a personality including dimensions of neuroticism, research tradition that provides a foundation for direct extraversion, openness, agreeableness and application with athletes. As the role played by conscientiousness, two that have supported both psychological factors in the performance and over well- theoretical and empirical by a large number of researches being of athletes has become better understood, in the last decades. Numerous studies have intervention have been designed to favorably affect examined the relations between five factor model athlete behavior throughout their involvement in sport dimensions and sport activities; these studies suggest and beyond]. Sport psychology researchers have been that there is a positive correlation between sport interested in how athletes' psychological an activities, extraversion and conscientiousness and also a characteristics influence performance. From this point, it negative correlation between sport activities and clear that psychological characteristics differ between neuroticism. Also the results of studies connected with more and less effective athletes and teams. Moreover, the Three-dimensional model of personality have shown ability to mentally prepare is

considered a key component correlation between sport activities with one or more of such differences. The optimal level of skills in dimensions of low neuroticism, high extraversion and low championship depends on three factors; physical, skill psychotics. Koon (1965) believed sportsmen and mental preparation. It seems that champion's different women are extraversion and there is a significant relation performance depends on mental preparation, influence of between sport abilities and extraversion rate. It is obvious psychology and personality of sportsmen. So it needs to higher abilities have related with extraversion and lower compare the relationship between psychological variables abilities with introspection. Some findings have found (personality) in different sports. This matter would help different results in this case.



The sports is a psycho-social activity which has both psychological dimension and social dimension Besides physical physiological and technical aspects women's interest in sports is found in all over the world and the nation's have a common interest in sports competitions especially at certain times during the Olympic games, where people from all Nations focus their attention on that drama of competition. The quality of the however, participation of the athletes and sports women's is determined by their psychological factors in this modern era of competition. The psychological preparation of a team is as much important as teaching the different skills of a game on the scientific times. The teams are not prepared not only to play the games, but to win the games it is not only the proficiency in the skills that brings victory but more important is in the spirit of the players with which they play and perform their best in the competition. Sports are as old as the human society, and it has achieved universal states in the modern times. It now enjoys a popularity, which outstrips any other form of social activity. It has become an integral part of the educational process. Millions of fans follow different sports events all over the world with an enthusiasm bordering on devotion. Many participation in sports activity for fun for health, strength, and fitness. It is taking the shape of profession to some with high skills, with ample financial benefits linked with high degree of popularity and professionalism.



The complex interplay between personality and sport has captivated the attention of researchers, coaches, and athletes for decades. Central to this discourse are two conflicting perspectives: the skeptical view, which argues that personality has a minimal effect on athletic ability, and the gullible perspective, which asserts a substantial influence of personality traits on sports performance. Recent studies, however, have introduced more nuanced theories, aiming to capture the multifaceted nature of this relationship. A comprehensive meta-analysis by Sutin et al. (2016) stands as a testament to this, offering compelling evidence regarding the association between personality and physical activity patterns. The study revealed that individuals with higher neuroticism levels were inclined toward inactivity, while those possessing elevated levels of extraversion, openness, and conscientiousness displayed reduced inactivity. These correlations remained significant, even when considering the shared variance between these traits. Remarkably, factors like age and sex did not alter these relationships, emphasizing the significant role of inherent tendencies in determining one's engagement in physical activity. From the skeptical viewpoint, Davis, when assessing the personality traits of elite hockey players, found no correlation with their performance levels. In contrast, a large volume of literature spanning thousands of articles highlights the significance of personality within sports. Yet, it's crucial

to note that many of these studies employ different personality theories and testing methods, adding complexity to the interpretation of findings. For instance, an analysis of 42 British athletic groups' mean scores on Cattell's 16-PF questionnaire shed light on how personality traits might impact athletic performance. Interestingly, while top athletes showed lower anxiety levels than their less skilled peers, their anxiety was still above the population average, challenging the common notion that sports personalities are stable extraverts. A crucial factor that differentiates one person from another is their unique personality.



Indeed, while personality differences between individuals might appear subtle, their implications can be profound. Personality, as defined by, refers to consistent patterns of behavior and internal processes stemming from the individual. Historical work by E. W. Scripture at Yale University underscores the potential for cultivating certain personality traits through sports, emphasizing that sports success is, to a considerable extent, influenced by personality. Notably, Hartung and Farge's assessment of middle-aged male runners revealed these athletes scored higher than the general populace in areas like intelligence, imagination, and self-sufficiency, among others. Meanwhile, Cui Guofu's research on elite Chinese race walkers found that introverted athletes outperformed extroverted ones, particularly among male participants.

In the sports domain, a longstanding question remains: is an athlete's behavior primarily determined by the situation they find themselves in, or by their inherent personality? One intriguing study explored whether personality differences attracted individuals to sports, termed the "gravity hypothesis," or if participation in sports molded an individual's personality, the "developmental hypothesis." Early findings suggested that team sport participants consistently scored higher on extroverted sport scales compared to individual sport participants and non-participants, thereby lending credence to the gravity hypothesis (Eagleton et al., 2007). Another significant theory to consider is the "performance hypothesis" posited. This hypothesis emphasizes that certain personality traits are intrinsically linked with enhanced sports performance. It posits that these traits, to a certain degree, assimilate into the high-performance sports context, implying that athletes with these traits might naturally align better with the demands and rigors of elite sports competition. Instead of adhering to fixed notions of personality types, such as the Myers-Briggs typology, theories of person-environment fit (PEFT) advocate for a dimensional approach. This perspective views personality traits as influenced by and reflective of specific environments.



Personality, complex and unique in each person, as well as motivation as our daily driver, are at the core of all forms of human behavior and action, including sports. Sport refers to various, competitively oriented, motor activities of variable and dynamic character, which enable meeting the need for movement, development of abilities, characteristics and sports knowledge, sports expression and creativity, as well as preserving and improving health and achieving sports results at all levels of competition (Milanović, 2009). However, given the qualitative level, sport can be top, ie professional and "sport for all", ie recreational. Professional sports involve individuals who meet strict health and selection criteria and show a high level of ability and characteristics, while participation in recreational sports requires only interest and the necessary motivation for regular exercise and the absence of health contradictions (Milanović, 2009). In addition, the basic characteristic of recreational sports is leisure and entertainment, and the basic goal is not

to win but to raise and maintain health and fitness. Also, given the organization of the sport itself, the sport can be individual (athletics, swimming, martial arts) and team (football, volleyball, basketball). Each sport offers different advantages. Thus, team sport develops and encourages a sense of community, while individual sport encourages the concentration and perseverance of the individual. Although defining a personality seems like an easy task, it is complex to make a distinction between personality traits, and some other psychological variables. A sufficiently comprehensive theory of personality should be conceived taking into account the structure, development and dynamics of personality, and the interaction of personality traits, activities of the individual and the environment. Accordingly, the personality is an organized and dynamic whole of interconnected emotional, cognitive, social, and behavioral patterns of the individual, which together, and relatively consistently act on the adaptation of the person to internal and external conditions, which to some extent can shape these patterns (Repisti, 2016). McCrae and Costa (1990) view personality traits, the key concepts in personality psychology, as dimensions of individual differences in tendencies to manifest consistent patterns of thought, feeling, and activity. There are several different personality models, but one of the most famous is The Big Five Model (Larsen and Buss, 2008), which was created under the hypothesis that personality traits can be derived from spoken, natural language. John and Srivastava (1999) gave the most commonly used representation of the Big Five Model that emphasizes the descriptive level and includes the following:

- [1] Extraversion vs introversion (gregariousness, activity, assertiveness, seeking excitement, positive emotions, and sociability);
- [2] Collaboration Vs antagonism (trust, altruism, honesty, indulgence, modesty, and compassion);
- [3] Conscientiousness Vs lack of focus (competence, duty, order, achievement, self-discipline, and judgment);
- [4] Neuroticism Vs emotional stability (anxiety, hostility, depression, impulsivity, and vulnerability); and
- [5] Openness Vs closedness to experiences (aesthetics, interests, ideas, unconventional values, imagination, and feelings).

Sportswomen of state level with group game and sportswomen of state level with individual game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with group game have higher sociability scores of personality as compared to sportswomen of state level with individual game. Sportswomen of state level with group game and sportswomen of national level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with group game have higher sociability scores of personality as compared to sportswomen of national level with group game. Sportswomen of state level with group game and sportswomen of national level with individual game do not differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with group game and sportswomen of national level with individual game have similar sociability scores. Sportswomen of state level with group game and sportswomen of All India university level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with group game have higher sociability scores of personality as compared to sportswomen of All India university level with group game.



Sportswomen of state level with group game and sportswomen of All India university level with individual game differ with respect to sociability scores of personality at 5% level

of significance. It means that, the Sportswomen of state level with group game have higher sociability scores of personality as compared to sportswomen of All India university level with individual game. Sportswomen of state level with individual game and sportswomen of national level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with individual game have higher sociability scores of personality as compared to sportswomen of national level with group game. Sportswomen of state level with individual game and sportswomen of national level with individual game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with individual game have smaller sociability scores of personality as compared to sportswomen of national level with individual game. Sportswomen of state level with individual game and sportswomen of All India university level with group game do not differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with individual game and sportswomen of All India university level with group game have similar sociability scores of personality. Sportswomen of state level with individual game and sportswomen of All India university level with individual game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of state level with individual game have higher sociability scores of personality as compared to sportswomen of All India university level with individual game. Sportswomen of national level with group game and sportswomen of national level with individual game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of national level with group game have smaller sociability scores of personality as compared to sportswomen of national level with individual game.



Sportswomen of national level with group game and sportswomen of All India university level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of national level with group game have higher sociability scores of personality as compared to sportswomen of All India university level with group game. Sportswomen of national level with group game and sportswomen of All India university level with individual game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of national level with group game have higher sociability scores of personality a compare to sportswomen of All India university level with individual game. Sportswomen of national level with individual game and sportswomen of All India university level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of national level with individual game have higher sociability scores of personality as compared to sportswomen of All India university level with group game.



Sportswomen of national level with individual game and sportswomen of All India university level with group game differ with respect to sociability scores of personality at 5% level of significance. It means that, the Sportswomen of national level with individual game have higher sociability scores of personality as compared to sportswomen of All India university level with group game. Sportswomen of All India university level with group game and sportswomen of All India university level with individual game differ with respect to

sociability scores of personality at 5% level of significance. It means that, the All India university level with group game have higher sociability scores of personality as compared to All India university level with individual game.

Motivation for achievement is a person's orientation to strive for success in performing tasks, to continue even in failure, and to experience pride in achievement. It refers to an individual's effort to master a task, achieve outstanding results, overcome obstacles, and work better than others. McClelland, Atkinson, Clark, and Lowell (1953) studied this motive, and found that family has an immense influence on its development because children who are encouraged to be independent, ambitious, and competitive in early childhood usually later have a more developed motive for achievement (Pajević, 2003). Motivation for achievement is popularly called the competitive spirit in sports. We see it as the behavior of "achievement" in the context of competition, with social assessment as a key component. However, many people compete with themselves, trying to achieve a better result than they have achieved earlier, even when no one else evaluates that performance. Therefore, the motivation for achievement and the competitive spirit refers to the search for excellent results, as well as to the psychological ways of achieving them (Barjaktarević, 2008). Franceško, Mihić, and Bala (2002) made an important contribution to determining the structure of achievement motives. During the factor analysis of the MOP2002 scale, they determined the existence of four factors of the general motive for achievement.

Conclusion

The sports participation have positive influence on the psychological variables such as an Anxiety and social intelligence behaviour among the sports group comparing to their non sports men. The sex is not influenced and acted as detrimental factors on developing the Psychological variables such as personality traits, locus of control, and anxiety, among sports women's, ,sports participation helped in cultivating an developing psychological factors in this study.

Researchers have suggested many explanations for the relationship between personality traits locus of control and level of anxiety sports women participation. Psychological class itself affects sports achievement. In the present study it was observed that majority of the sports participants belonged to personality traits locus of control and level of anxiety of Karnataka state women s inter university sports participation women players.

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FUTURE PROSPECTS OF ROBOTICS AND ARTIFICIAL INTELLIGENCE (AI) IN ACADEMIC LIBRARIES

Srikanth. H.G.

*Librarian, Soundarya Institute of Management and Science - [SIMS]
Soundaryanagar, Sidedahalli, Nagasandra Post, Bangalore
E-mail: srikanth.hg@soundaryainstitutions.in*

ABSTRACT

The integration of robotics and artificial intelligence (AI) technologies in academic libraries presents a promising avenue for transforming the way information is accessed, managed, and utilized. The study also looked at the benefits and challenges that libraries are having bringing robotics into use. Furthermore, the paper examines the potential for AI chatbots and virtual assistants to provide instant support and guidance to library patrons, offering 24/7 assistance with research queries, resource recommendations, and navigation of library services. Overall, this paper presents a comprehensive overview of the future prospects of robotics and AI in academic libraries, highlighting their potential to revolutionize library services, improve user engagement, and support the evolving needs of academic communities.

Keywords: *Academic Libraries, Artificial Intelligence, Humanoid Robots, Natural language Processing, Robotics.*

Introduction:

Academic libraries stand at the forefront of knowledge dissemination and information services in higher education institutions. As the digital age continues to reshape the landscape of academia, the integration of robotics and artificial intelligence (AI) emerges as a transformative force with the potential to revolutionize library operations and redefine user experiences. The idea of developing machines that do human job or replace it was ancient, but new technologies like artificial intelligence, machine learning, bigdata, etc. made it popular. These innovations boosted Robots' success. Industrial robotics began in the mid-20th century (Gasparetto & Scalera, 2019).

Other AI-dependent technologies include “Natural language Processing (NLP, Deep Learning, Drones, Computer Vision, Autonomous Vehicles, Machine Learning, Cognitive Computing”. Robotics, a subset of AI, is used in “Industries, Hospitals, Banks, Academic Institutions, Military Operations, etc.” A field of technology that supports the “Design, Construction, Operation, and Application of Robots (Abram, 2019)”.

As robots are used in many industries, in modern libraries they are too. Using robots in libraries is no longer news. AI and machine learning have made library robots more efficient and capable. Many libraries worldwide use humanoid robots for various operations (Anumula et al 2024). Tella (2020) emphasized for the widespread use of robots in libraries globally. Various libraries are providing STEM education programmes with access to robots. The Chicago Public Library and the University of Rhode Island Library are both sponsoring various programmes centred upon robotics.

Review Literature

Unnikrishnan et al (2017) their paper explores the use of robots in library management systems, demonstrating their ability to track book shelf arrangements, send notifications, and return books to the collection centre, simplifying book management. Chingath & Babu (2019) also examined the impact of AI can be effectively integrated into libraries, improving efficiency and productivity. This study discussed how several libraries institutions like NY Public Library, UMKC, and Shanghai Library, AI technologies support various library operations. Raghavaiah & Sreekanth (2023) in their paper they have examines the feasibility of robots entering libraries and their readiness to support librarians,

aiming to up-skill their profiles and address concerns about job replacement. Shubha (2023) the researcher examines how technology advances, especially AI robots, have influenced libraries. It also explores how robots are employed in libraries for different functions and its future applications. The research also examined library robots adoption issues. Robotics will improve library operations and surveillance, according to the research the impact of AI-enabled robots and how to implement them in a library setting. This study discussed how several libraries also examined the impact of AI-enabled robots and how to implement them in a library setting. This study discussed how several libraries.

Robots in Libraries

Robots have emerged as innovative tools for enhancing services and transforming user experiences in libraries around the world. From automated book sorting systems to interactive robotic assistants, these technological marvels are revolutionizing how libraries operate and engage with patrons.

Libraries in the digital era periodically adapt technology. Autonomous drones and robots have become more popular in several industries, including libraries, due to their wide range of uses. Robots have begun to enter all areas and tasks formerly performed by manual labourers, where they are unable to operate (Vysakh & Rajendra 2019).

Types of Robots

It's difficult to describe and classify robots. Each robot is unique, and robots vary significantly in size, design, and capabilities. Still, many robots have traits that allow grouping. Here are some the robots according to their respective areas of application follows:

1. Aerospace Robots : Aerospace robots encompass flying and space-related robots, including seagulls, rovers, helicopters, and humanoids like NASA's Robonaut and GIGAI's G1, aiming to aid in future space missions.
2. Delivery Robots : Delivery robots use cameras, GPS, and sensors to transport goods like food, groceries, and medical supplies autonomously, navigating environments like Zipline's drones for blood distribution to hospitals.
3. Drones : Drones are flying robots which collect data and photographs from above. Dji's Phantom quadrotor is popular, while Anafi and Skydio provide autonomous flying plans. Military drones, known as unmanned aerial vehicles (UAVs), like the Global Hawk, are used for long-term surveillance.
4. Educational Robots : Educational robots, including programmable models, Lego sets, 3D printers, and teacher robots, are used in classrooms, STEM programs, and homes to teach problem-solving and coding skills.
5. Humanoid Robots : Humanoid robots, with mechanical bodies and human-like appearances, have captured imaginations but remain confined to research labs, with the dream of humanoids living among us still distant.

Application of Robots in Library Operations

Library technology has evolved with the digital era. Technology has enhanced libraries in many ways. Libraries have progressed from book stores. Robots, now commonplace, aided libraries and other businesses. Intelligent AI-enabled robots do many library tasks nowadays.

Library Guide Robot : Library Guide by using Semi Humanoid Robot "Pepper" Humanoid robots are expected to be used in libraries to provide public services and assist with everyday tasks. Since 2015, "Pepper" has been utilized in YAMANAKA Public Library for People's Creativity, primarily for displaying library guidance and tourist information, with limited library-specific tasks.

Book Handling Robot: The book picking robot, consisting of a mobile platform, robot arm, and camera, automates book finding and picking. The robot moves towards the book, observes its movement with a camera, and then lifts the arm to deliver it to the reader. The robot first inputs the needed books with their numbers, then identifies them using RFID on

the shelf. If the RFID matches the saved book details, a notification is sent to the shelf unit, and the book is deposited into the robot's basket (Sharath & Shivashanka 2013)

Book retrieval : Temple's Main Campus library features BookBot, a robotic book retrieval system that saves space by storing titles in metal bins stacked in five bays. Visitors can search a database connected to a robotic crane to retrieve specific books from the stacks.

Books Delivery by Robots : The robot is first provided with the required books and their corresponding numbers as input. The robot will determine the identity of the books by identifying the RFID tags of the books on the shelf. If the RFID matches the stored book data, an alert will be delivered to the shelving unit. The tray that corresponds to the book will move ahead and place the book into the robot's basket. Additionally, the book will be transported to the collection centre, where users may get it (Vysakh & Rajendra 2019).

Challenges for implementing robotics in libraries

Robotics implementation has several advantages and would help libraries provide unique services, operate, and attract customers, but Indian libraries haven't used it. Few libraries utilize robots for library work. Libraries will adapt to technology and use robots to help them. However, libraries may struggle to implement many of these due to issues such as:

- i. Some Academic libraries with limited funds may struggle to use robots and AI technology. Advanced robotics systems and AI software may be too expensive for certain institutions.
- ii. AI and robotics integration may need infrastructure upgrades in many academic libraries. This includes reliable internet, robot charging power, installation, and operating space.
- iii. Integration with current systems: Integrating robots and AI with library systems such as cataloguing and circulation software is a challenge. It may require technical skills and resources to guarantee data compatibility and interoperability.
- iv. AI systems need plenty of data, including user data, to work. This data must be protected, particularly in academic environments that highlight intellectual freedom and privacy.
- v. Academic library personnel and users inexperienced with robots and AI might turn down their introduction. Staff and users must be trained and supported to accept and benefit from these technologies.
- vi. Robotics systems need frequent maintenance and technical assistance to work well. Over time, academic libraries may lack the knowledge and resources to maintain these systems.

Benefits of Robotics and AI technologies in academic library:

- i. Enhanced efficiency: Robotics and AI technologies can automate routine tasks such as sorting, shelving, and inventory management, allowing library staff to focus on more complex and value-added activities. This increases the overall efficiency of library operations.
- ii. Improved user experience: AI-powered systems can personalize the user experience by recommending relevant resources, providing virtual assistance, and offering tailored services based on user preferences and behaviour. This enhances user satisfaction and engagement with the library.
- iii. 24/7 accessibility: Virtual assistants and AI-driven chat bots can provide round-the-clock assistance to library users, regardless of the library's operating hours. This ensures that users can access support and resources whenever they need them.
- iv. Data-driven decision-making: AI technologies can analyze vast amounts of data to generate insights into usage patterns, resource popularity, and user needs. This enables libraries to make data-driven decisions about collection development, resource allocation, and service improvements.

- v. Expanded access to resources: Robotics can facilitate the retrieval and delivery of physical materials from storage areas, making it easier for users to access items that may be located off-site or in remote storage facilities. This expands access to the library's resources.
- vi. Assistance for users with disabilities: AI-driven technologies, such as speech recognition and natural language processing, can provide assistance to users with disabilities by enabling hands-free interaction and accommodating diverse learning needs.
- vii. Support for research and innovation: AI tools can assist researchers in analyzing and synthesizing information, discovering trends, and generating new insights. Robotics can also support experimental research by providing platforms for testing and prototyping.

Conclusion:

Library technology has evolved with the digital era, enabling the use of intelligent AI-enabled robots for various tasks. These include library guides, book handling robots, book retrieval systems, and book delivery robots. However, challenges such as cost, infrastructure upgrades, integration with current systems, privacy and security issues, user acceptance and training, and frequent maintenance and technical assistance are present.

Benefits of robotics and AI in academic libraries include enhanced efficiency, improved user experience, 24/7 accessibility, data-driven decision-making, expanded access to resources, assistance for users with disabilities, support for research and innovation, cost savings in the long term, and a competitive advantage. Overall, integrating robotics and AI technologies into academic libraries can transform them into dynamic, efficient, and user-centric hubs of learning and research. However, libraries may struggle to implement these technologies due to limited funds, infrastructure upgrades, privacy and security issues, user acceptance and training, and the need for frequent maintenance and technical assistance.

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NEWSPAPER READING HABITS AMONG SECONDARY SCHOOL STUDENTS OF CHAMARAJANAGARA DISTRICT, KARNATAKA

Srinivasa Naika

Research Scholar & Librarian
Government First Grade College, Gundlupet
Email: srinivasanaika@gmail.com

Prof. Mallinath Kumbar

Professor (Rtd.), Department of Library
and Information Science, Manasagangotri, Mysore

ABSTRACT

This study investigates the newspaper reading habits among Secondary School Students of Chamarajanagara District, Karnataka, aiming to understand their frequency of reading, preferred newspaper genres, motivations, and the influence of socio-demographic factors. A mixed-method approach was employed, combining survey data collected from a sample of Secondary school students across Chamarajanagara District in Karnataka with qualitative insights from focus group discussions. In this study, an attempt has been made to study the newspaper reading habits among Secondary School Students of Chamarajanagara District, Karnataka.

Keywords: Newspaper reading habits, seeking news, newspapers, secondary school students, information seeking.

Introduction

Newspapers have traditionally been a vital source of information and knowledge dissemination, playing a crucial role in shaping public opinion and fostering civic engagement. In the digital age, however, with the proliferation of online news platforms and social media, the landscape of news consumption has undergone significant transformations. Amidst these changes, understanding the newspaper reading habits of Secondary School Students of Chamarajanagara District, Karnataka holds immense importance, as this demographic represents a critical segment of the population poised to shape the future discourse and civic participation in society.

This study seeks to explore the nuances of newspaper reading habits among Secondary School Students of Chamarajanagara District, Karnataka, a state renowned for its cultural diversity and educational excellence. By examining factors such as frequency of reading, preferred newspaper genres, motivations, and socio-demographic influences, this research aims to provide valuable insights into how young adults engage with print media in an era dominated by digital information channels.

Scope and Objectives

The study explores the newspaper reading habits among Secondary School Students of Chamarajanagara District, Karnataka. Which covers students from social science, science, humanities, and arts streams for the academic year 2022-2023. Further, the study focuses on leading dailies such as Kannada Prabha, Prajavani, Vijayavani, Vijaya Karnataka, Samyuktha Karnataka, Andolana and some of the English dailies including The Hindu, Deccan Herald, Times of India and Indian Express which are being subscribed in the Secondary Schools at Chamarajanagara District, Karnataka

Some of the objectives of this study are to:

- Find out the purpose of reading newspapers by Secondary School students
- Know the time being devoted by Secondary school students to reading newspapers

- Know the different areas of interest of Secondary School students in newspapers
- Assess the extent to of Secondary School students depend on print newspapers other than the Internet, radio, television, and other mass media for news
- Find out the views of students towards reading newspapers
- Recommendations to promote newspaper reading habits among Secondary School students

Methodology

The work employs systematic, objective, and quantitative research techniques using a well-structured questionnaire. This is a survey in which the sample was selected using random sampling to collect the data. A total of 150 questionnaires were distributed among the Secondary School students of all the disciplines of the college, out of which 129 were returned with a response rate of 86%.

Data analysis and interpretation

The information given by the Secondary School students is analyzed and presented.

Languages Known by Students

Students were asked about the languages they knew. It is observed that Kannada being a regional language dominates with 129 (100 %) students. 120(93.02%) students know the English language as being medium of instruction and 30 (23.25 %) students know other languages.

Newspaper Reading Place

The students read newspapers in different places. The majority of the students i.e., 85 (65.89 %) read newspapers at the Library and 44 (34.10%) students read newspapers at home/hostel.

Preference of Language for Reading Newspapers

120 (93.02 %) students read Kannada newspapers, 23 (17.82 %) read English newspapers.

Time Spent for Reading Newspaper

A study was done to know how much time students spend reading newspapers every day 64 (49.61 %) students read newspapers for less than an hour while 40(31 %) respondents spend 1 and ½ an hour. Followed by around 19(14.72 %) devoting two hours and only very few around 6(4.65 %) spending more than two hours per day.

Source of Newspaper

The majority of the students, i.e., 43 (33.33 %) depend on self-subscriptions, Lead by 86 (66.66 %) students who rely on libraries to read newspapers.

Format/Version of Newspaper Reading

Table 1 reveals the format/version of the newspaper preferred by the students. Most of the students i.e., 114 (88.37 %) prefer to read print versions of newspapers and only 15 (11.62 %) prefer to read on the Internet.

Table – 1 Format/Version of Newspaper reading

Sl. No.	Format/Version	No. of Respondents with %
1	Internet Version	15 (11.62 %)
2	Print Version	114 (88.37 %)
Total		129 (100%)

Choice of News in the Newspapers

Table 2 shows the student's choice of news for their reading in the newspapers. The highest number 98 (75.96%) of students prefer educational news, followed by 63 (48.83%) of the students prefer sports news, political news 84 (65.11 %), international news 48 (37.20%), health-related news 56 (43.41%), sensational news 32(24.80%), editorial 26 (20.15%), entertainment 98 (75.96%), advertisement and business purpose 72 (55.81%). Moreover, agriculture-related news is preferred by only 29 (22.48%) of respondents respectively. The least preferred part of the news is lettered by the reader's portion, i.e., 12 (9.3 %).

Table 2 Choice of news in the Newspapers

Sl.No.	Choice of News	No. of respondents with %
1	Sensational News	32(24.80%)
2	Advertisement/ Business	72 (55.81%).
3	Editorial Page	26 (20.15%)
4	International	48 (37.20%)
5	Politics	84 (65.11 %)
6	Sports	63 (48.83%)
7	Entertainment	98 (75.96%)
9	Education	98 (75.96%)
10	Agriculture	29 (22.48%)
11	Health	56 (43.41%)
12	Letters	12 (9.3 %)

Purpose of Reading Newspaper

Newspapers are a vital source of information in enlightened societies, providing the most recent information to readers. Newspapers serve various purposes for different categories of users. Students were asked about the various purposes of reading newspapers and they have given different reasons for reading newspapers. Table 3 expresses that the majority of the respondents, i.e., 94 (72.86 %) read the newspaper to obtain information while 66(51.16%) of the respondents read the newspaper for general knowledge and 55 (42.63%) of the respondents read for educational purposes. The least number of respondents, i.e., 31 (24.03%) read newspapers as it is their usual task of the day, as a leisure activity and also for getting various scholarship information respectively.

Table – 3 Purpose of reading newspapers

Sl.No.	Purpose	No. of respondents with %
1	Get Information	94 (72.86 %)
2	General Knowledge	66(51.16%)
3	Searching New Jobs	57 (44.18%)
4	Educational Purpose	55 (42.63%)
5	Entertainment	61 (34.07%)
6	Sports News	54 (30.16%)
7	Usual task of the day	31 (24.03%)
8	Leisure activity	28 (21.70%)
9	Improve self-status in the society	19 (14.72%)
10	Keep abreast with the present Happenings of all over the world	69 (53.48%)
11	Getting scholarship information	10 (7.75%)
12	Read health-related news	56 (43.41%)

Preferred Time for Reading Newspapers

Most of the respondents i.e., 102 (79.06 %) read newspapers in the morning, while 18 (13.95 %) respondents read during any time of the day, 3 (2.32 %) of the students read in the evening and only 6(4.65%) read in the afternoon.

Constraints in Reading Newspapers

The majority of the respondents, i.e., 102 (79.06 %) feel that time is a major constraint as they don't get time to read the newspapers, while 27 (20.93 %) feel the non-availability of newspapers at the right time and place.

Use of the Internet for Reading Online Newspapers

The rapid growth of information and communication technology (ICT) has led to the widespread use of the Internet in almost all the daily affairs of human life. Using the internet people can access the newspapers everywhere. In the study, it was noticed that 15

(11.62 %) students access the internet to read online newspapers, while 114 (88.37 %) respondents don't read newspapers online.

Newspaper's Role in Improving Language and Communication Skills

The role of newspapers in improving language and communication skills was analysed. 113 (87.59 %) think that they agree newspaper reading plays an important role in improving their language and communication skills, while 16 (12.40 %) of the students do not agree.

Effective Sources of News

With the advantage of ICT, there are a variety of sources of news. Here an attempt has been made to know which source of news students feel more effective. Table 4 reveals that the majority of the students i.e., 112 (86.82 %) believe Television is an effective source of news, 102 (79.06 %) of the respondents believe Newspaper, 67 (51.93 %) believe online News and 11 (8.52 %) with the opinion that radio is the effective source of news.

Table -4 Effective sources of News

Sl.No.	Sources	No. of respondents with %
1	Newspapers	102 (79.06 %)
2	Television	112 (86.82 %)
3	Online News	67 (51.93 %)
4	Radio	11 (8.52 %)

Purpose of using the Internet on Mobile

The study found that the majority of the students, i.e., 93 (72.09 %) are accessing the internet to read newspapers on their mobile, while very few students, i.e., 36(27.90%) don't read newspapers on their mobile. Table 5 shows the different purposes of using the internet on their mobile. The majority of respondents use the Internet for general information, i.e., 56 (43.41%), while 38 (29.45 %) of the respondents use the internet for social networks, 20 (15.50%) of the respondents use the internet for entertainment, followed by 15 (11.62%) of the respondents use for news channels.

Table -5 Purpose of Using the Internet on Mobile

Sl.No.	Purpose of Using the Internet on Mobile	No. of respondents with %
1	Entertainment	20 (15.50%)
2	Social Networks	38 (29.45 %)
3	General Information	56 (43.41%)
4	News channels	15 (11.62%)

Findings and Suggestions

It is found that the majority of the students i.e., 100 % read Kannada newspapers and most of them (65.89%) read newspapers at the Library. 31 % of students spend one and a half an hour a day reading a newspaper. 33.33% of students are self-subscribers of the newspapers and the number of students who access the newspapers in the library is marginal i.e., 66.66 %. In this digital environment, almost all the students seem to be tech-savvy, but 88.37 % of the students prefer print newspapers and only 11.62% of them read the newspaper on the internet.

The study shows that 75.96% of students prefer Entertainment News and education-related news. majority of the respondents, i.e., 94 (72.86 %) read newspapers to obtain information while 66(51.16%) of the respondents read newspapers for general knowledge and 55 (42.63%) of the respondents read for educational purposes. 112 (86.82 %) of the respondents believe Television is an effective source of news, 102 (79.06 %) feel that time is a major constraint as they don't get time to read the newspapers, and 114 (88.37 %) of respondents don't read newspapers online.

On data analysis and opinions given by the respondents, some important suggestions have been made, which will help in promoting newspaper reading habits among Secondary School students of Chamarajanagara District, Karnataka.

- a) The school library should increase subscriptions to newspapers and inspire the students to make use of newspapers in the library through user education programmes.
- b) The awareness about the importance of newspaper reading and sections of newspapers must be created among Secondary School students which will help them to keep updated with current happenings around the world.
- c) Awareness has to be created on the use of online newspapers, which may ultimately help for the cause of environmental protection.
- d) With so many news portals available online, Secondary School students must be encouraged to prefer news portals for getting instant news of their interest.
- e) Majority of the Secondary School students are not aware of news portals. Therefore, library staff should promote the use of various news portals among library users by creating awareness through orientation programmes.

Conclusions

As it is well known that, reading is an important activity in the process of learning, which can shape good personality, ideas, right thinking and brings a change in the attitude of individuals. Newspapers particularly are the major conveyors of current information to the students. Despite the availability of several other sources of news like books, magazines (Print media), radio, TV channels, mobile, electronic media, etc. newspapers continued to dominate as the main system of up-to-date information. Newspapers not only provide current news, they also contain thought-provoking and enlightening articles, features, editorial and sub-editorials, analysis and remarks. In today's highly competitive world, newspapers can equip students with the necessary information, knowledge and insights that will give them the much-needed edge for being successful not only in competitive examinations or job interviews but also in their professional and social lives. Therefore, newspapers are essential for college and university students.

This study reveals that most of the students are in the habit of reading newspapers but still they are not aware of the advantages of online newspapers and news portals which can spontaneously update their knowledge by providing the latest and nascent information. Therefore, library professionals must create more awareness of such news sources and libraries must ensure that the students have access to a wide variety of newspapers, to enable them Secondary School students to read their ideal newspapers and improve their knowledge base which can help them to be more creative in their academics and lead a responsible life in the society.

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PHYSICAL EDUCATION IMPORTANCE FOR CHILD DEVELOPMENT

Srinivasa.V

College Director Physical Education
Govt First Grade College, Koppa, Maddur (T), Mandya (D)

ABSTRACT

As we witness our children's physical growth, it's important to remember that there's more to their development than meets the eye. In today's fast-paced and competitive world, where challenges abound, parents must assist their children in building mental resilience. Mental health issues can be ten times more detrimental than physical ailments. Here's a detailed guide on nurturing your children's mental fortitude amidst intense competition.

Keywords: Mental health, issues, Emotional benefits, physical activity, competitive world

Introduction

Our young learners love to get up and move throughout the day. Physical activity breaks up monotony within the classroom, gets children excited to participate, and allows them to get their energy out. Physical activity is an important part of education and should be built into a child's day at your center.

There are many physical, social, and emotional benefits to having children partake in consistent physical activity. A lack of physical activity in children could lead to physical health issues in the future, along with negative effects on their mental and social well-being.

✚ Physical benefits

According to Kids Health, regular exercise encourages strong bones, a healthy body weight, and even enables better sleep. Partaking in consistent physical education can even encourage children to eat better as their bodies will naturally need more energy to stay active. Aerobic activity will also help with blood vessels and heart health. Children are developing in every way, and physical development is incredibly important. Active children will have fewer issues with blood pressure and cholesterol, along with lowering the risk of developing type 2 diabetes. Proper and varied exercise can also help children with their endurance, strength, and flexibility. Plus, fostering an environment in which healthy activities are normalized helps establish a healthy lifestyle for years to come. As we supply children with opportunities for academic development, we should be sure to do the same when it comes to encouraging physical health as well!

Physical health is essential for children's overall well-being and development. It encompasses various aspects, including nutrition, exercise, and proper sleep. Ensuring children maintain a healthy lifestyle sets the foundation for their long-term health and happiness. Encouraging regular physical activity, providing nutritious meals, and establishing good sleep habits are key components in promoting physical health for children. Additionally, regular check-ups with healthcare professionals help monitor growth and address any potential health concerns early on. By prioritizing physical health, parents and caregivers support children in thriving both physically and mentally.



✚ **Relationship-building and cooperative skills**

Children who take part in physical activities tend to have more opportunities to play with others. They learn to work with others to achieve a common goal. Passing a ball, running a relay, playing hopscotch, and counting how long a partner can hula hoop all enable children a chance to root for and with others. They can help one another climb the ladder of a tall slide and cheer as they come down. They challenge each other to swing higher or run faster in friendly ways. Expending energy while being with others helps with conflict resolution as well.

Children are less irritable and frustrated when they can work out their emotions in different ways. Sometimes simply taking a walk outside can help with working through a mood or allowing children the space they need to sort out their feelings. Sometimes having children talk through their conflicts with a peer as they bounce a ball or hit a balloon back and forth to each other can yield better results than a stationary conversation. Physical activities will help children build life skills that go beyond the playground.



✚ **Improved mental health**

When children are physically healthy or consistently engaging in physical activities, they have a healthier mindset about their own bodies and can recognize their own body's capabilities. When we provide students with different types of sports and activities, whether that be running, jumping, throwing a ball, or team sports, children become more likely to try new things. They will develop an openness to new experiences.

Children will learn to handle stress in healthy ways and develop higher self-esteem. A positive body image can start at a young age as children learn the many amazing things their body has the strength to accomplish through physical education. This can lead to healthier adolescents and, eventually, young adults. The inclusion of exercise has long-term benefits well past the days of childcare.

✚ **Positive effects on learning**

Physical activities are linked to improved brain function due to an increase in oxygen and neurotransmitters. In fact, children who are physically active develop language skills more easily. They respond to stimuli faster and often build strong literacy skills. A child's ability to focus and learn are associated with physical education, along with an ability to remember and handle stress. This means that embedding physical activities into the day will not distract children. Instead, these exercises will enhance a child's learning experience.

Children will be given a more well-rounded and beneficial experience when they are engaged in consistent physical activity. Physical education is an important part of a child's development and has many immediate and long-term benefits. Encourage children to exercise each day – the results will be happier and all-around healthier kids!



✚ **Improvement Of Physical Skills**

Younger children benefit from physical exercise during playtime by developing their physical skills. These are essential for teaching them the fundamental motions they will use in everyday life. Basic tasks like feeding oneself, tying one's shoes, and even writing can be accomplished considerably more quickly as a child's motor abilities grow.

✚ **Physical Development**

Like food, exercise is an essential component of a child's physical development. Exercise serves as a stimuli for the body to respond to, helping your child develop stronger

muscles and bones. Healthy bone mass and density should be developed from a young age. Since, this will lower the chance of later in life having bone-related disorders like osteoporosis.

✚ **Improved Posture**

Children frequently slouch, and exercise can help reverse this bad trend by enhancing a child's posture by building core and spinal strength. A child's spine is protected against deformation caused by excessive slouching when they have good posture. It also lowers their risk of developing body pains from poor posture.



✚ **Weight Control**

Physical activity burns calories more effectively than anything else, making it a must for weight management. While most parents want their kids by letting them eat as much as they like. It should be noted that childhood obesity carries a significant chance of continuing into adulthood.

✚ **Improved Stamina**

Exercise helps build physical strength, and having physical strength offers several advantages for a developing child. This includes the ability to walk farther distances without becoming exhausted and the strength to carry out daily duties. Additionally, exercise encourages stability and flexibility.

✚ **Enhanced Mental State**

Exercise may first seem like a torturous task to some kids. But, once they get into the swing of things, it may actually be a cathartic experience. The production of feel-good chemicals during exercise also helps to improve moods and relieve tension and anxiety. Nothing brings joy to a parent's heart like seeing their joyful child!



✚ **Growth Of The Thought**

Exercise benefits cognitive growth as much as physical fitness! The hippocampus and prefrontal cortex of the brain are stimulated to multiply and make new connections during exercise. This leads to greater concentration and memory, which are qualities that will unquestionably meet the scholastic needs of a school-going child!

Teaching your child to embrace a growth mindset is crucial for boosting mental strength, especially in physical education. Help them understand that their abilities and smarts can grow with practice and determination. Celebrate their efforts, persistence, and learning journey, not just their accomplishments. This shift in mindset in Physical education encourages resilience, as kids see challenges as chances to get better instead of giving up. It's all about showing them that with hard work and dedication, they can achieve anything, both in sports and in life.

✚ **Aids In Cardio-Vascular Health**

Parents may find children with excess weight to be endearing, but there are health risks associated with it. Obesity in childhood increases a child's chance of metabolic disorders like type 2 diabetes and cardiovascular problems. If they are trained physically at an early stage there will be no worries later.



Physical education plays a crucial role in the overall development of children, providing them with a wide range of benefits and skills that extend beyond the classroom. Through a high-quality physical education curriculum, children can enjoy and excel in various physical activities while gaining important abilities such as strategic thinking, decision-making, and teamwork. In this blog post, we will explore the significance of physical education and its impact on children's daily lives.

✚ **Improving Academic Performance**

One of the key benefits of physical education is its positive influence on academic performance. Research has shown that engaging in physical activities like team sports, biking, swimming, and playground games has a direct impact on the brain, enhancing cognitive abilities and creativity. Physical education fosters motivation, productivity, and critical thinking skills, contributing to improved academic achievement and a greater sense of connection to school and its objectives.

✚ **Developing Social Skills**

Physical education also plays a vital role in the development of social skills among children. By participating in team sports and engaging in physical activities, children learn the value of teamwork and gain a sense of identity and belonging. Physical education teachers who exhibit prosocial behavior provide an environment where children learn essential social and communication skills, enabling them to collaborate effectively with others and develop as team players.

✚ **Reducing Stress**

The demanding school environment often places mental and physical stress on students, leaving little time for other activities. Engaging in physical activity through physical education can help alleviate stress and anxiety. Regular exercise supports emotional stability, enhances mental toughness, and promotes overall well-being. By incorporating physical education into their routine, children can find balance, relieve stress, and improve their mental health.

✚ **Self-Improvement and Character Development**

Participating in team sports within a structured environment allows children to develop leadership skills and sportsmanship. By taking on various responsibilities and learning new talents, children cultivate respect for themselves and their peers. Furthermore, physical education teaches empathy and resilience, helping children navigate challenging situations. Positive reinforcement from coaches and peers boosts self-esteem, fostering confidence and motivation for personal growth.

✚ **Increasing Focus and Retention**

To maintain high levels of engagement in their studies, students require regular breaks throughout the day. Physical education plays a significant role in this regard by breaking the monotony of the classroom and allowing students to expend excess energy that may hinder their attention. Through physical exercise, students can refresh their minds, enhance focus, and improve information retention, ultimately benefiting their academic performance.

✚ **Promoting Quality Sleep**

Establishing a regular exercise routine is essential for ensuring adequate sleep. Studies have shown that moderate exercise over a few weeks can significantly improve sleep quality and duration in teenagers. However, intense physical activity close to bedtime may slightly reduce sleep duration. For adults and children alike, regular, gentle exercise positively impacts sleep length, quality, and the time it takes to fall asleep.



✚ **Developing Leadership Qualities and Communication Skills**

Physical education provides opportunities for every child to develop their leadership qualities and improve their communication skills. Regardless of their natural inclinations, children can acquire and enhance their leadership abilities through the right instruction and exposure to decision-making. By applying their existing knowledge to novel perspectives, children can develop their leadership skills and positively influence others.

It's no secret that physical education is crucial for children's holistic development, it offers numerous benefits that extend beyond the classroom. At Podar Smarter Schools we focus on improving students' academic performance and fostering social skills to reduce stress and promote better sleep. Physical education plays a pivotal role in shaping healthy, active lifestyles.

By engaging in physical activities and understanding the positive effects of exercise, children are more likely to continue participating in physical activities outside of school, leading to lifelong benefits for their physical and mental well-being.

✚ **Improved Concentration and Focus**

Regular physical activity, as promoted in PE classes, has been shown to enhance concentration and focus in children. By engaging in physical exercise, children can better concentrate on academic tasks, leading to improved learning outcomes.

✚ **Promotion of Healthy Lifestyle Habits**

Encouraging healthy lifestyle habits, such as regular physical activity and balanced nutrition, through physical education fosters improved overall well-being in children. This positive influence on well-being can also contribute to enhanced academic performance.

✚ **Teach Problem-Solving Skills**

In today's competitive world, knowing how to solve problems is super important. Help your child learn to figure out tricky situations, come up with solutions, and make decisions on their own. This makes them feel more in charge of what's happening around them and gives them the confidence to face challenges head-on.

✚ **Encourage a Balanced Lifestyle**

Encouraging a balanced lifestyle is crucial for mental resilience. Ensure your child maintains a healthy mix of school, hobbies, and relaxation. Getting enough sleep, eating well, and staying active contribute to their overall health, helping them handle stress and excel in everything they do.

✚ **Creating a Supportive Home Environment**

Foster a nurturing atmosphere at home where your child feels cherished, embraced, and motivated. Provide guidance without setting unattainable standards. Commend their accomplishments, even the minor ones, and offer solace and encouragement during difficult times. A reliable support network enhances your child's self-assurance and ability to bounce back from challenges.

✚ **Mastering Time Management**

Assist your child in honing effective time management skills to juggle their tasks and activities. Prioritizing, organizing, and efficiently handling time can ease stress and strain. By teaching these skills from an early age, you provide your child with the means to manage hectic schedules and fulfill commitments, fostering mental strength.

Conclusion

Physical activity benefits your child's health in more ways than one, including their mental well-being. The future health of your child will improve. Even starting certain physical exercises young preserves health over the long term. Physical activity is without a doubt important for a child's growth. Here are a few advantages of physical education for a child's development.

In the competitive world today, helping your child grow mentally strong is a valuable gift. At **SAGE International School**, known as the **best cbse school in Bhopal**, we focus on fostering a growth mindset, nurturing emotional intelligence, and teaching the importance of effort. Through engaging physical education programs for children, creating a supportive atmosphere, and teaching problem-solving skills, we ensure your child is ready to face challenges with confidence. We believe that success isn't just about reaching goals but also about the journey. With the right mindset, we empower children to thrive in any environment.

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SURVEY STUDY ON TRADITIONAL STORAGE PRACTICES OF FINGER MILLET

Srusti S. N. R

*Research Scholar, Department of Botany and Seed Technology,
Sahyadri Science College, Kuvempu University, Shivamoga, Karnataka, India.*

Ramesh Babu .H.N

*Professor, Department of Botany, Sahyadri Science College,
Kuvempu University, Shivamoga, Karnataka, India.*

Rajeshwari .N

*Professor, Department of Botany, Sahyadri Science College,
Kuvempu University, Shivamoga, Karnataka, India.*

ABSTRACT

Current study aimed to assess the traditional storage practices being practiced in southern dry zone of Karnataka viz. Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara districts and to identify the best storage practices being followed in these districts. Field survey was undertaken in major finger millet [*Eleusine coracana* (L.)] growing region of all five districts of Southern Dry Zone of Karnataka viz. Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara. Information was documented by using Participatory Rural Appraisal (PRA) technique like observation and discussion. The data on various methods was collected by contacting the respondents through one-to-one interaction and group discussion methods, the indigenous technologies used by dry land farmers for storage of seed were documented. Survey observations delineated that hagevu, metal bin and gunny bag type of traditional storage practices being followed for the storage of finger millet in southern dry zones of Karnataka viz. Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara districts. Precautionary measures before storage, during storage, and after receipt of grains highlighted in our study were being practiced by farmers in these regions to ensure protection from spoilage of grains. It was demonstrated through our field study that traditional technical skill teaches us how best the utilization of natural sources could be useful for storage and protection of life of grains or seeds

Keywords: Traditional storage, Finger millet, Metal bins, Hagevu, Gunny bag

Introduction

Almost 54.6% of the population engaged directly or indirectly in agriculture and allied activities, and hence agriculture is the backbone of Indian economy that plays a vital role in its development. In coarse cereal crop, Finger millet crop is one of the major crops and its production is not only in terms of food security, but also in creating better nutrient for people. Finger millet [*Eleusine coracana* (L.)] is one of the most important millet crops belonging to family Poaceae and sub family Chloridoidae ^[1]. Finger millet is originally native of the Ethiopian highlands and was introduced into India approximately 4000 years ago ^[2]. Finger millet is considered to be of Indian or African origin. It is cultivated widely in East Africa and tropical Asia, mainly in the rainy slopes. It is also cultivated in the upland area of the Himalayas at an elevation of 2,300 m. India is the largest cultivator of finger millet, which is primarily grown in the states of Karnataka, Tamil Nadu, Andhra Pradesh, Orissa, Maharashtra, Uttar Pradesh, Bihar and Gujarat. These eight states together account for more than 95 per cent of the total area under cultivation and more than 98.13 per cent of the total finger millet production in the country. Among the Indian states that produce finger millet, Karnataka is the largest producer, accounting for 58% of the country's production. It is main dietary component in dry land region of southern Karnataka

particularly in districts of Bangalore, Kolar, Chikkaballapura, Tumkur, Mysore, Chamrajanagar, Hassan, Mandya and Chitradurga [3]. International Journal of Engineering Technology and Management Sciences

Finger millet is important millet crop in dry hill area of India. It is rich in protein, calcium, phosphorus, iron, fiber and vitamin content. The calcium content is higher than all cereals and iodine content is considered to be highest among all the food grains. Ragi has best quality protein along with the presence of essential amino acids, vitamin A, vitamin B and phosphorus [4]. Finger millet contains higher proportion of carbohydrate which is the form of non-starchy polysaccharide and dietary fiber, which provides several nutritional and physiological benefits [5].

Finger millet contains Moisture (13.10gm), Protein (7.30gm), Carbohydrate (7.00gm), Fat (1.30gm), and Energy (328.00Kcal).⁴ Finger millet is believed to be one of the few special cereal crops that support the world's food supplies. It is a hardy crop that can be grown in diverse environments. The grains can be stored for years without insect damage, which makes it a valuable crop for famine-prone areas. Although grown under dry lands, an assured harvest makes it an indispensable crop in the semi-arid, arid and rainfall limited hill agro-ecosystems. Seed treatment and storage comprise of one of the most important aspects of agriculture. The seed treatment practices have to appropriate to get good germination, plant establishment, and crop protection in early stage of crop growth [6]. Traditional knowledge has been passed on to subsequent generation through oral means. There are no limited accounted versions of this knowledge, which can be preserved for future reference and dissemination [7]. With this background, the present study was field survey study was conducted to assess the traditional storage practices being practiced in southern dry zone of Karnataka viz. Mysuru, Mandya, Hassan, Tumkur & Chamrajanagara districts and to identify the best storage practices being followed in these districts.

Materials and Methods

Study area

Karnataka is divided in to 10 agro climatic zones as per Soil, rainfall and other aspects are as follows 1) North eastern transition zone 2) North eastern dry zone 3) Northern Dry zone 4) Central dry zone 5) Eastern Dry zone 6) Southern dry zone 7) Southern transition zone 8) Northern transition zone 9) Hilly zone 10) Coastal zone [8].



The present field study was conducted Mysuru, Mandya, Hassan, Tumkur & Chamrajanagara districts of southern dry zone of Karnataka.

Field Survey

Field survey was undertaken during work period in major finger millet growing region of all five districts of Southern Dry Zone of Karnataka. Information was documented by using Participatory Rural Appraisal (PRA) technique like observation and discussion [9]. The survey was continued for different stages of crop and season (Kharif, Rabi and summer) for collecting the sample to assess the safe storage method.

Observation

During the Survey it was observed that the Traditional storage structure practices to identify and gather description that are prevalent in the five viz. Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara districts of Southern Dry Zone of Karnataka. The data on various methods was collected by contacting the respondents through one-to-one interaction and group discussion methods, the indigenous technologies used by dry land farmers for storage of seed were documented.

Results and Discussion

Natural contamination of food grains is greatly influenced by environmental factors such as type of storage structure, temperature, pH, moisture, etc ^[10]. Types of structure used, length and purpose of storage, grain treatment (e.g., parboiling) and pre-storage practices are all important variables affecting storage losses. The importance of these regional and crop variations immediately determines certain necessary characteristics of crop storage research micro-organisms. A large number of insect pests have been reported to be associated with stored grains. The occurrence and numbers of stored grain insect pests are directly related to geographical and climatic conditions. Furthermore, for a country like India, it is necessary to minimize the storage losses. As of now storage losses in India is 10% which is abnormally high as compared to other developing countries. In India, 60-70% of food grain produced is stored at home level in indigenous storage structures. Grain is generally stored either in bags or in bulk. A combined system of bag-cum-bulk storage is also practiced in some parts of the country. In villages the bulk storage system is more common than the storage in bags which is considered to be a practicable method of storing grain in the government godowns as well as in trade ^[11]. However, our field survey study revealed the following traditional practices being practiced in southern dry zone of Karnataka viz. Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara districts. There are mainly following three types of storage practices being followed for storage of finger millet grains.

- Hagevu type of storage
- Metal bin type of storage
- Gunny bag type of storage

Hagevu type of storage

Hagevu is a popular underground storage structure Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara regions belonged to southern dry zones of Karnataka. The structure is egg-shaped and has a round opening, large enough for one person to descend into the pit. The inner walls are smeared with cow dung and then covered with paddy husk. After filling the hagevu fully, the paddy straw is spread on top as a thick layer and the structure is sealed with mud plaster. The size of the hagevu depends on the size of the land cultivated by the farmer. This method of storage is advantageous and the grain stored becomes red and sturdy. It can be used to store large quantities of grain without taking up space, as it is located underground (Figure 1).



Figure 1: Hagevu type of storage practices

Metal bin type of storage

Metal bins made up of steel, aluminium RCC are used for storage of finger millet grains inside and outside the house in some regions of Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara belonged to southern dry zones of Karnataka. These bins are fire and moisture proof. The bins have long durability and produced on commercial scale. The capacity ranges from 50 kg to 10 tonnes (Figure 2).



Figure 2: Metal bin type of storage practices

Gunny bag type of storage

In some other regions of Mysuru, Mandya, Hassan, Tumkur & Chamarajanagara belonged to southern dry zones of Karnataka gunny bag type of storage being practices. These structures are generally used for the storage of 25 to 500 tons of grain. The length of the structure is about twice the width or greater than that. A typical floor plan of such a structure large enough to store about 6000 bags (500 tones) of grain. Bags of different capacities (35, 50, 75 and 100 kg) with or without inside plastic lining are used. The standard size of a 100 kg bag is 100 cm x 60 cm x 30 cm i.e. length of bag is 100 cm, width of bag is 60 cm and height of filled bag is 30 cm. This bag can store 93 Kg of Wheat and 75 Kg of Paddy (Figure 3).



Figure 3: Gunny bag type storage

Stored product pests can be managed either behaviorally (traps viz., probe traps, light traps, pitfall traps etc...) or with several preventive and curative measures (both chemical and non-chemical methods). Once a facility is obtained, a number of steps are to

be taken to ensure safe storage of grains. These steps comprised as follows; (i) checking for leakage of rainwater and sufficiency of drainage facilities, (ii) cleanliness of the facility and environment, (iii) assessment of capacity of the facility, (iv) pesticide treatment, (v) security and firefighting arrangements and (vi) repairs to available equipment are some of the important steps to be followed before storage of grains. During the storage of grains, steps to be tracked as follows; (i) maintenance of cleanliness, (ii) ensuring aeration where necessary, (iii) checking for leakage after rains, (iv) inspection for insects, rats and mites at fortnightly intervals, (v) watch for advancement in deterioration, if any, (vi) pesticide treatments necessarily based on observations, (vii) ensuring disposal where called for, (viii) arrangement for segregation, salvage and processing, wherever, damage owing, and (ix) checking for leakage of water and other causes might. While, during the receipt of grains from storage following steps to be undertaken; (i) inspection for variety and soundness of quality, (ii) inspection carefully for infestation, if any, and when present, for type and extent of infestation, (iii) inspection whether grain has excess moisture, whether it had been heated up in earlier storage and has any musty or rancid odor, and (iv) any grain rendered wet or damaged to be segregated and salvaged with facilities available and check the weight received. Literature reports evidenced various types of traditional practices being followed by farmers for the storage of cereals, grain, sorghum, and agricultural products for future use. Kiruba et al., studied the basic design, the type of materials used and the ingenuity of the storage systems have been elucidated with the view of modifying such a system to suit the present day storage needs [12]. Karthikeyan et al., isolated on the traditional storage practices was done by direct interview and group discussion methods triangulation exercise was done in the study villages to gather reliable information and indigenous technical knowledge of the dry land farmers of Tamilnadu [13]. Furthermore, Wambugu et al., studied on seed security are key to the attainment of household food security among resource poor farmers in developing countries. The traditional methods included hanging cobs over the fireplace and storing in gunny bags with cow dung ash as the seed treatment. They also follow the principle of airtight, though not new, should be used to design low-cost seed storage containers for resource- poor farmers which will result in better seed quality. And also shows that cow dung which is freely available in most homesteads is a good seed protectant and is effective in maintaining seed quality in storage. Cow dung ash should therefore be combined with airtight storage to increase the seed longevity [14]. In addition, Kumar et al., studied on Indigenous knowledge is eco-friendly and safe both to man and his environment. It is estimated to 60-70% of food grain produced in the country is stored at home level in indigenous structures ranging from bamboo baskets to mud structure, gunny bags and modern bins [15].

CONCLUSION

Our field survey study conducted at Mysuru, Mandya, and Hassan, Tumkur & Chamarajanagara regions of southern dry zones of Karnataka revealed majorly hagevu, metal bin and gunny bag type of traditional storage practices being followed for the storage of finger millet [*Eleusine coracana* (L.)]. Precautionary measures before storage, during storage, and after receipt of grains highlighted in our study were being practiced by farmers in these regions to ensure protection from spoilage of grains. It was demonstrated through our field study that traditional technical skill teaches us how best the utilization of natural sources could be useful for storage and protection of life of grains or seeds.

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GENDER INEQUALITY A CHALLENGE TO SUSTAINABLE DEVELOPMENT – THE SOCIOLOGICAL STUDY OF RURAL WOMAN IN KONANUR

Sunil.K

*Assistant Professor in Sociology
B,M,Shetty Government First Grade College, Konanur, Hassan District
Email id- sunilshamith@gmail.com*

ABSTRACT

The issue of gender inequality & women's empowerment is the most discussed topics. Gender inequality is evident in all cultures. In India gender disparity is widespread. As a result, low empowerment of women and high gender gap still impede the development of our country. Even though we witness various development processes. The likelihood of its sustainability is in question. In order to achieve Sustainable development achieving gender equality is the key. Women's ability to make strategic life choices was denied to them previously. Sociologically we define gender stratification as the hierarchical distribution by gender of economic & social resources in a society. Gender inequality is the issue of both human rights and the indicator of sustainable development. To enhance women's roles in sustaining their families & communities achieving gender equality is paramount. Gender inequality retards the nation's progress. World over, contextual limitations on gender have been visible. Women and girls have limited access to financial resources, employment, and freedom from violence, so social and political participation are not gender specific. Recognising the criticality of gender equality, upcoming sustainable development goals are centred on women, since she is emerging as equal stake holder in the development paradigm of 2030 agenda for sustainable development. Gender equality and emancipation of rural women is a key for inclusive development and social progress in India. This paper looks at the gender inequality towards rural women in 3 different sectors where we witness unequal access to education, vulnerable to discrimination and violence, asymmetrical division of labour & rights in work place.

Keywords : *Gender Disparity, Sustainability, Gender Stratification, Empowerment, Freedom.*

Introduction

Gender inequality is the major hurdle for the sustainable development. If our development process need to accelerate, it is only through equality of gender. Gender based differences should address multifarious issues of the women. In rural areas higher level of gender gap is found with various discriminations and violence. In the states such as Bihar, Madhya Pradesh, Uttar Pradesh and Rajasthan also Jharkhand including Chhattisgarh women suffer a greater degree of gender discrimination. India's progress toward sustainable development is not ensured without participation of its women and girls, and without strong commitment towards gender equality. We should foster an enabling scenario through gender sensitive approaches with families, Communities, local representatives, & men to abandoning violence & discrimination against women.

UNFPA is supporting the state governments of Bihar, Madhya Pradesh. Maharashtra & Rajasthan for rolling out Beti Bachao Beti padao (BBBP) with a focus on countering gender bias, sex relation & increasing value of girls. India is paired at a critical juncture with fast growing economy, rapid urbanisation & expanding youth population. Women especially in developing country like India, should be brought to the forefront of being the prime beneficiaries and drivers of sustainable development & humanitarian action. Rural women, who bear the biggest burden of care, domestic work and time.

Rural women and girls face the brunt of feminisation of poverty and its intergenerational consequences. They are also most vulnerable in conflict situations and humanitarian crises. Disability rates are higher among rural women support systems will be weak or non-existent and they are stigmatised. Women in rural indigenous culture face marginalisation and human rights challenges, what we identified as multiple form of compounded discrimination and intersectional ties. These often imposed on them to the detriment of their social economic, wellbeing and happiness. So rural women seldom have equal access to land, property, finance entrepreneurship and other skills and capacity building. Education of rural & women is one major enabler of a big leap to their empowerment. Progress in sustainable agriculture& rural development will contribute for gender equality & empowerment of rural women.

Review of Literature

Anna-Maria Lind (2006) stated that India's population still leads traditional lines in rural areas. Religions laws and traditions still determine the lives of many people, particularly women. Social & religious factors make many women refrain from this right in order not to cause distortions within the family. The preference for having sons permeates are social classes in India, which sets the standard for girls throughout their entire lives.

Berta Estevez- Volart (2004) discussed gender discrimination against women in the market place reduces the available talent in an economy, which has negative Consequences. Gender discrimination takes many forms. Many social practices seen as normal from a religious or cultural point of view have women out of the economic main stream. These Social practices have profound economic consequences because they do not allow society to take advantage of the talent inherent in women.

GOI planning commission (2008) indicated that discrimination against women and girl impinges upon their right to health and manifests itself in the form of worsening health & nutrition indices. Then, India continuous to grapple with unacceptably high MMR, IMB, and increasing rates of anaemia, malnutrition, HIV/AIDS among women.

Kalyani meun Sen and A.K. Shiva Kumar (2001) found that girl in India are discriminated against in several ways – fewer months of breast feeding less of nurturing & play, less care or medical treatment if they fall ill, less of food, less of parental attention. As a result, girls are far, more susceptible than boys to disease and infections, leading to poor health and short life span. It is this lifelong discrimination in nurturing and care that is the real killer of women-less visible, but as unequivocally lethal as female foeticide and infanticide.

Sonalde Desai (1994) observed that parent's reluctance to educate daughters has its roots in the situation of women. Parents have several incentives for not educating their daughter. Foremost is the view that education of girls bring no returns to parents and that their future roles, being mainly reproductive & perhaps including agriculture labour require no formal education.

Importance of gender equality in attaining Sustainable development

The UNDP report defined human development and by extension, sustainable development, as the process of enlarging people's choices. Creating environment in which people can expand their capabilities and opportunities. Sustainable human development refers to the environment of people's life and social progress in all round manner. It also includes enhancing gender equity. Sustainable human development is in true sense pro-poor, pro-nature, pro-jobs, and pro-women.

(Anand and Amartya 1994) says sustainable development should stress to enlarge capabilities of people & women specifically to lead fuel, productive, satisfying & valuable lives by enhancing quality of life such as health, knowledge life expectancy. Without gender equity sustainable development is impossible. There is a link between gender inequality and overall human poverty, best manifested by feminisation of poverty in developing countries

like India. So, policy making and democratic institutions of governance is crucial ingredient by sustainability.

The very notion of gender equality entails the belief that injustice is associated with very definition of the concept. A holistic, Comprehensive approach to sustainability is one of the most important ways to support and maintain gender justice & equality. Human related major themes should be should among are genders.

The gender equality is the fifth sustainable development goal of the U.N. The UN acts to empower women and girls in all its programmes, with stepped up action or gender equality by 2030 sustainable development. India's progress towards gender equality measured by its position such as gender development Index has been disappointing. While Indian GDP has grown by 7% but male-female wage gap is 27% at white collar jobs & this should be addressed quickly.

Cultural Institutions in India, especially those of patrilineality & patrilocalty's control role in perpetuating gender inequality should be side-lined. Now a days in rural Indian negative stereotypes eventually disappears confirms the behavioural studies. This underscores the importance of sustained affirmative action as a way to reduce gender bias.

An attitudinal shift is essential for women to be considered as equal within their homes & in broader societies. Then the goal of sustainable development will be in every sense a reality.

Objectives of the study

1. To study inequality & discrimination among rural working women.
2. To study women's special needs for maternity protection and health care.
3. To study their educational back grounds with socio-economic status.
4. To study social Exclusion based on gender inequality.

Area of the study

The study on which the paper is based was konanur a rural Hobli of Arkalgud Taluk in Hassan District Karnataka state. The four issues of women are studied first its inequality & discrimination towards women, secondly women's health care, thirdly socio-economic back ground fourthly the rural women's educational qualification.

Data collection Methodology & sampling

The main purpose of the investigation was to study various form of inequality in background of exclusion so data obtained from respondents through Interview method so interview schedule was structured. A systematic random sampling technique was adopted in the present study a total 100 respondents were interviewed.

Data analysis: A quantitative data was analysed group discussion and Interview methods were used.

Scope for further research

The study and findings in this paper is a significant effort to look at the issue of gender inequality and its feminist outlook. Further research is needed to upgrade in promoting all-round development of women status towards sustainability.

Limitations of the study

The study of gender inequality and its challenge to sustainability is voluminous. Since this study is restricted only to Konanur rural women groups. Thus, scope of the study is restricted also an in-depth study and analysis on this problem is not possible in the present study. Besides, only micro approach could be adopt to complete the study.

Findings of the study

Inequality and discrimination

- a) Caste inequality and gender inequality of women in relation to social exclusion is vast, because women in rural areas belong to weaker and backward castes, who cannot find the decent jobs. Caste based social stigma combined with low standards of living makes women to work in unfavourable conditions. In this study most worker belong to backward and scheduled castes.

- b) Religion: in this study area also plays a key role in deciding women's inequality, many women respondents mostly belong to Hindu religion 87%, in that 11% to Islam and 2% to Christianity. Even many women are made to sit out of their houses for 3 days during menstrual cycle, they are not allowed to worship and participate in any kind of religious affairs, menstruating women are considered to be polluting this practice is more evident among Hindus. Even in some upper caste Hindus women are not allowed to enter burial grounds in case of funerals. Religious base is also a deciding factor in gaining employment for women of Konanur Hobli. Religious bias is by and large deciding professional life for women. In many cases women belonging to minority religious groups are looked down upon and made to wait for even manual jobs.
- c) Age: Many young women worked in rural areas, who were below 23 years of age. Many women were married at the age of 18 years. In this study age group belongs (18-23 yrs) were found to be working in large numbers about (62%) from the research done. This clearly shows women are made to work and they being in some kind of work is mandatory due to their low- economic status and host of domestic responsibilities. The family is bounded upon endogamous rule.

Gender discrimination

In this study working women from three sectors were examined and interviewed. Here married women working were 74%, unmarried comprises of 20% deserted women about 2%, divorced women about 1% and widows comprises of 3% the respondent women's worked in coffee Industry in nearby Kushalnagar of Coorg district , construction sector was second and thirdly as Agricultural labourers. But majority of rural women of Konanur works in agricultural sector on daily wages with very low remuneration. The women from all the mentioned 3 sectors face severity of discrimination. Here in agricultural sector, women face lot of discrimination, based on gender, when compared with construction worker women and coffee curing women worker. The most un-organised sector and payments are given at the will of landlords which will have many parameters such as gender, caste, kinship etc. The women belong to socially exclusive caste groups faced the brunt of the situation. Not a single woman in this sector is aware of gender protection laws, policies and constitutional safeguards that protect the interest of women.

Need for maternity protection and health care:

This paper concentrated on the women's conflict situations towards women, childcare, household being in rural area number of dependents are more that adds multiple domestic roles all have contributed to the vows of working women. Here more than a career growth the women are looking for the income that supports their basic livelihood. Since they do not have higher education qualification, they are subjected to various hardships in balancing work role and domestic role. Many rural areas have limited access especially women's health providers. Significant disparities exist between rural and urban women. In this study women from heterogeneous differences in caste, religion composition are studied. Many kinds of health issues such as anaemia, malnutrition, obesity of post-delivery, diabetes and even mouth cancer due to excess use of chewing tobacco, ortho related problems such as Arthritis also found here. Lack of preventive screening also adds vows to such issues.

With regard to maternity and reproductive health services received a sexual active rural women aged 15-45 Educational qualifications combined with a host of domestic burdens lead to weak socioeconomic status.

Educational Status:

Due to mass and rejuvenated educational policies now a days we can see there is a slightly women education statistics. In this study of konanur hobli about 63% of women have matriculation, 21% have graduation, 9% have post-graduation, 7% of them are either illiterates or school dropouts.

This situation clearly says women do not get chance to higher education and jobs, due to their moderate level of education, they cannot afford or bargain for decent wages. Most of the women in rural areas belong to BPL [Below poverty line] category. Their wages support only hand to mouth, without them being working, family affairs will not run smoothly. In many cases women are made to work forcefully, many women who have families suffer from their men-folk due to alcoholism, gambling, Indebtedness, extramarital affairs etc. They can't even think of basic life, lot of domestic problems made these women to lead a stressed life. Low education on sustainability. When the above-mentioned conditions have equal and interrelated importance. Building up socio-economic aspects of sustainability while neglecting its balance leads to social inequalities and degradation in the society. This paper looks at critical perspective on present sustainable development paradigm at the background of women rights, their ailing conditions, for social and gender justice. Finally to conclude it is said that sustainable development is multi-layered process. It encompasses social, economic, political and cultural environment dimensions.

Conclusion:

Only when men and women engage in socio-economic and environmental conditions do sustainable Development happen. Without it is contra years within the past year relied on family planning methods (35%). Rural women access to health care is low because of poverty, ignorance, illiteracy, poor transportation facilities and lack of awareness. They travel long distance to receive care in medical, dental and mental health services to tertiary care hospital which are located in urban areas. In this study we noticed that women aged 15-45yrs reported delayed care or no medical care due to lack of specialists (19.7%) and it indicates that women belong to low caste strata and low income groups, many ASHA (Accredited Social Health Activist) workers coordinating to strike a balance with maternal-child and rural health agency to identify health needs of rural women and barriers to health care. Only education research, employment and poverty disparity removal program can negate these problems.

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ADVANTAGES AND DISADVANTAGES OF SPORTS – A STUDY

Vikram.P.M

*Physical Education Director, JSS College of Arts, Commerce and Science
Nanjanagudu, Mysore District, Karnataka State*

ABSTRACT

Teenagers today experience a myriad of benefits from competing in sports in public schools, from developing camaraderie and team building to honing physical and personal skills. Athletes discover the challenges of both winning and defeat as well. With the many benefits, however, teens competing in high school sporting events must simultaneously balance athleticism with the potential dangers, such as an overly intense focus on the goal of winning. This goal can become a catalyst leading to destructive behaviors to a Sport person overall physical health and well-being.

Keywords: *Physical fitness, Sports psychology, Team building, Teamwork, Competition*

Introduction

Health care providers place a growing emphasis on physical fitness for kids. One way for children to stay healthy is to play sports. In addition to providing physical activity, sports also help children develop social skills and practice teamwork. However, tough competition and pressure to fit too much into an already packed schedule are reasons for kids to shy away from sports. It is important to review the pros and cons of sports for kids before deciding if signing your child up is the right choice.

Team Building and Public School Athletic Benefits

While sports are certainly an integral component of the public high school experience, teens and parents must foster positive athletic experiences by maintaining awareness of all positive and dangerous behaviors and making informed decisions when their children are involved in athletic competition.

Personal Development

Whether teens compete in team sports or engage in more individualized activities, all high school sports are fundamentally designed to help teens develop stronger personal and interpersonal skills and talents. Athletics offers teens a physical outlet to exert their troubles, anger, and emotions. As hormones alter teens' moods and thoughts, competition fosters an opportunity for teens to interact with fellow peers, coaches, and mentors, while helping them understand their own abilities and talents.

When children and teens participate in group competitions and activities, they learn skills that apply to opportunities both on and off the playing field. Through competition, teens establish a solid work ethic that values practice and rewards determination. Teenagers enhance skills in self-reliance and team interaction, and develop new structures of self-motivation, discipline, and personal responsibility.

Physical Fitness

While teens competing in sports are certainly exposed to opportunities to enhance their personal and social development, athletes competing in public school sports also expand their physical abilities and fitness levels. Today's teens are exposed to an array of entertainment avenues that may foster laziness, such as television, video games, and other media devices, but the traditional experience of sports, exercise, and kinesthetic activities help boost teens' minds and bodies. Involvement in sporting activities keeps children moving and engaged physically, vital for their overall health and well-being.

During these formative high school years, teenagers' bodies grow and change constantly, and participation in sports can help teens learn how to maneuver and adjust to

their changing body and physical abilities. In addition, a teen's hormones and chemical makeup are constantly in flux. Involvement in sports can actually help the body produce more positive chemicals, such as endorphins and adrenaline, which creates more stable moods, positive feelings of happiness, and decreased feelings of depression or sadness.

Collegiate Preparation

While teens adopt an array of new and enhanced skills through participation in athletics, teens even more notably become more rounded college applicants (Metzl & Shookhoff, 2003). When applying to colleges, regardless of the collegiate location or status, most schools will review an applicant's full four-year transcript, which includes grades, course load intensity, test scores, and extracurricular activities.

By participating in sports and other extracurricular clubs and organizations, an applicant demonstrates the ability to manage academics with additional responsibilities, an important quality in a successful student. This balance illustrates student's self-discipline, social involvement, and general well-roundedness. Furthermore, scholarship opportunities may be available for students who display noteworthy abilities and athletic skills.

Balancing the Pros and Cons of Competition

Potential Dangers of Competition and Sports

While any physical activity and sport can provide teens with incredible benefits and opportunities, parents and teenage athletes must also be aware of the potential downfalls of competition and athleticism. As teens engage in competitive events and team sports, their exposure to peer-pressure and anxiety may increase with the need to win.

Furthermore, athletes can experience extreme physical pressures when too much is demanded from them, resulting in injuries from overuse or other physical ailments. As revealed in the article, "High School Wrestler Learned Training Dangers First Hand," common wrestling practices can lead to dangerous physical consequences. Wrestlers are often forced to either gain or lose weight in order to compete in their desired weight class, which leads to restrictive dieting often involving severe caloric deprivation. This practice is paired with excessive cardio exercise that quickly, and dangerously, burns off body fat and weight. While these practices are often considered to be a more drastic example of the dangers of athletics, any teen who feels suppressed by the pressures of competition may choose to engage in harmful practices in order to win and encounter athletic success.

How to Guide Teens to Safely Compete

While teens may be subjected to some potential dangers from athletics, parents can help promote a safe competitive drive by limiting the focus on winning and encouraging their child. Metzl & Shookhoff (2003) assert that if parents and teens "remain uninfected by the toxins of winning at all costs and instead focus on effort and fair play, youth sports can be beautiful, exciting, and fun. They can provide kids with an extraordinary opportunity to express their talents and their character, to run around screaming and laughing with joy." To achieve this, parents and coaches should strive to keep the long-term perspective of sports and competition at the forefront, while teaching teenagers how to do the same.

In regards to addressing the physical dangers of sports, parents can avoid many of the dietary and exercise issues by enforcing specific rules during the sports season. For example, during wrestling season, parents can set a "dinner rule," requiring teens to eat dinner with the family to ensure their child has a balanced diet. Additionally, it is important for parents to talk with their children about any concerns they may have and counsel their children through open doors of communication.

Teens may find it very difficult to strike a balance with the many obligations of both academia and athleticism during a sports season, so it is important for parents to help teens handle the stress and frustrations that may occur. Teens' grades may drop or their social interaction with friends may decrease, and if this occurs, parents can always take advantage of the insight and experience of a teen's coach if they need assistance. For example, if the teen refuses to share thoughts or issues or continues to decline in school or

behavior, parents can ask an experienced coach to monitor or speak with the teen. Oftentimes, if the concern is valid and realized, coaches will force teens to sit out during games or competitions until health, attitude, and safety is improved and ensured.

Against a backdrop of increasing childhood obesity, the physical benefits of sports participation are clear. Kids today need to move more, and being on a team or involved in a sport is a great way to stay healthy. But there's also been more discussion of the physical risks (link is external) that children face in sports, and with good reason. As a nation, we are coming to terms with the epidemic of knee, shoulder (tennis and baseball), and head (football) injuries related to specific sports. What are talked about less often are the psychological risks and benefits related to youth sports.

6 Psychological Risks of Youth Sports

Self-esteem is tied to sport performance

Who your child is as a person shouldn't be tied closely to the ability to hit home runs or score touchdowns. If it is, that's a guaranteed set-up for feelings of failure and low self-esteem. Most young athletes feel great when they win, but it's how they handle loss that defines their long-term character. Remind your sporty kid that she's always a winner in your book, even if she loses.

Coaches who demoralize and bully

There are more wonderful coaches than those who do damage, but it would be naïve to expect all coaches to have your child's psychological interests at heart. Too often, a win-at-all-costs mentality devastates young athletes. Be on the lookout for behaviors that humiliate your child. Does the coach rant and rave at games? Call out and embarrass players? The best coaches inspire through positive reinforcement and role modeling, not harassment and bullying.

Delusions that sport will provide college scholarships

Too many parents believe that their child is destined to receive a Division 1 college scholarship. This is akin to playing the lottery: Don't bank on it. Putting all your eggs in the sports basket is misguided and dangerous for your child's emotional well-being. In addition to the statistical improbability, there is a strong chance that an athlete will face a sport-ending injury or simply burn out. Make sure that your athlete has other interests and doesn't believe that sports are the only route to success.

Strained relationships with over-invested parents

Have you ever said "we won" after your child's game or match? Don't do it. Too many parents become over-invested in their children's athletic pursuits, which can lead to unconscious behaviors that will hurt young athletes. I've seen parents scream and berate their children for missing a goal or not winning a race. Love and affection should never be tied to athletic performance. In fact, children need you most when they fail to perform well.

Unhealthy performance pressure

Sports psychologists are in high demand because parents, coaches, teams and schools put undue pressure on young athletes to perform well every time they step on the field, court, or track. Remember, they're children, not professional athletes. As a mom to five competitive tennis players, I understand the inclination to demand more, but kids are kids. Some days they will miss every serve just because, and other days they will look like they're destined for greatness. Work with them to maintain perspective and understand that it's only a game.

Inappropriate feelings of superiority

Our society's obsession with sports puts a premium on athletes and athleticism, which can imbue young athletes with an inflated sense of self. Schools and towns may even afford young athletes privileges and leeway that other students don't receive. There are too many instances of successful athletes who thought they were above the law or the norms of

a school. Parents need to be vigilant for signs that their young athletes lacks humility and empathy. It's up to us to make sure that sports don't bring out the worst in our children.

6 Psychological Benefits of Youth Sports

The ability to take criticism and work collaboratively

To help young athletes improve, coaches must point out mistakes and faulty technique. Learning to handle this feedback establishes a foundation for adult skill-building and collaboration. In addition, with their team and coaches, athletes learn the give-and-take of working together and managing conflict. Research suggests that athletic girls become women who are better equipped than their non-athletic counterparts to handle criticism and stress. Effective coaching and competition can help build internal resources that will serve kids well into adulthood.

Self-esteem and efficacy

Skill-building in sport enhances self-esteem, which carries over into other areas of life. Going from not being able to make a basket to rarely missing a foul shot can boost a young person's ego. Gaining efficacy in one arena, especially when helped by a coach or a parent, demonstrates that listening and practicing yield positive results. This self-awareness helps young athletes make an invaluable connection between their goals and effort.

Acquisition of a work ethic

Sports require effort and commitment, both traits that serve us well in adulthood. I've seen how my children apply the aptitude for hard work and effort that they acquired in athletics to almost everything they do in their lives, from hobbies to academic assignments. Excelling in sport is all about the work we expend, which sets up an excellent foundation for long-term success.

Positive body image

Our contemporary addiction to social media and adulation of seemingly "perfect"-looking people can wreak havoc on children's body image. While not always a perfect antidote, sports can make young athletes feel proud of their bodies and what those bodies can do. Serena Williams shared that she was ashamed of her athletic frame until she won a Grand Slam and understood that her success was tied to her very strong body. Female athletes in particular have been shown to benefit from positive feelings about their bodies, regardless of whether they conform to society's very rigid standards of female beauty.

Resilience

Too many tweens and teens are unable to handle the rigors of school. They are easily overwhelmed and crumble when they do poorly in a class. In fact, parents often protect their children from defeat by fiercely advocating for them, doing their homework, and even asking teachers to change poor grades. Overprotection undermines the development of resilience. Youth sports provide a nice balance, since parents can't protect athletes from defeat and hardship. It's good for your kids to learn how to both lose and win.

Self-regulation, organization, and time management

Combining sports and school requires an ability to self-regulate. Getting to practice on time with the proper equipment helps student-athletes learn to organize themselves and say no to other activities, such as video games, social media, and excessive socializing. Learning when to say no is a great skill to carry over to adulthood. Many Northwestern athletes shared with me that they actually got better grades during their regular season because they were forced to take a more organized approach to their schoolwork.

As parents, we should all be aware of the psychological risks that come with sport participation while reinforcing the positives. Sports are supposed to be fun. When it stops being fun and has the potential to hurt your child, it's time to shift gears and reevaluate. However, if your young athlete is having fun, the rewards can last a lifetime.

Conclusion

By having an awareness of the benefits and challenges of involvement in high school athletics, parents and teenagers can make informed choices that lead to success in high

school and beyond. Physical activity is vital for robust health and overall well-being, but it is important for athletes and parents alike to reach a balance between physical limitations and the need to compete to win. If a mindful approach is taken to participation in athletics, teenagers will be nurtured to become their physical and mental best.

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A STUDY ON BASAVANNA IS KARNATAKA'S 'CULTURAL LEADER'

Baby Premalatha B

Assistant Professor, Dept of History
Government First grade College, Siddhartha Nagara, Mysore

ABSTRACT

Basavanna, also known as Basaveshwara, was a saint-poet, social reformer, and philosopher who lived in the 12th century. He spoke out against caste, class, and gender inequality. During the rule of the Kalyani Chalukya/ Kalachuri dynasty, Basavanna was a Hindu Shaivite social reformer who was a Lingayat saint in the Shiva-centered Bhakti movement. At the court of King Bijjala of the Kalachuri, Basavanna started his career as an accountant in Mangalaveda. With his honesty, hard work, and visionary mission, Basava rose to the position of Prime Minister in the court of king Bijjala. The Basava Purana by Palkuriki Somanatha, a sacred Telugu text from the 13th century, gives a comprehensive account of Basava's life and ideals. Basavanna used his poetry, known as Vachanaas, to raise societal consciousness. The Basavanna rejected all gender or social discrimination, superstitions, and rituals. Basavanna is credited with several major Lingayat works, including Vachana, such as the Shat-Sthala-Vachana, Kala-jnana-Vachana, Mantra-Gopya, Ghatna Chakra-Vachana, and Raja-yoga-Vachana.

Keywords: Vachana, Lingayatha, King Bijjala, Social reformer, Traditional legend

Introduction

Basava (1131–1196), also called Basavēśvara and Basavanna, was an Indian philosopher, poet, Lingayat social reformer in the Shiva-focused bhakti movement, and a Hindu Shaivite social reformer during the reign of the Kalyani Chalukya/Kalachuri dynasty. Basava was active during the rule of both dynasties but reached the peak of his influence during the rule of King Bijjala II in Karnataka, India.

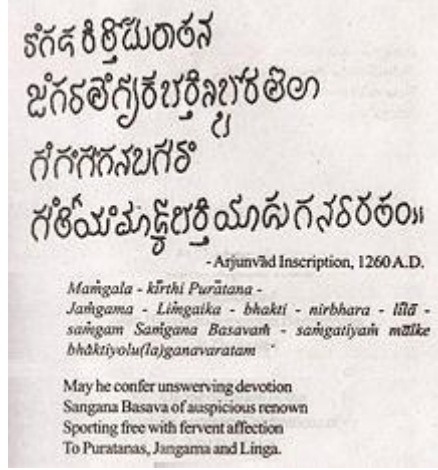


Basava spread social awareness through his poetry, popularly known as Vachanaas. He rejected gender or social discrimination, superstitions and rituals but introduced Ishtalinga necklace, with an image of the lingam, to every person regardless of their birth, to be a constant reminder of one's bhakti (devotion) to Shiva. A strong promoter of ahimsa, he also condemned human and animal sacrifices. As the chief minister of his kingdom, he introduced new public institutions such as the Anubhava Mantapa (or, the "hall of spiritual experience"), which welcomed men and women from all socio-economic backgrounds to discuss spiritual and mundane questions of life, in open.

The traditional legends and hagiographic texts state Basava to be the founder of the Lingayats. However, modern scholarship relying on historical evidence such as the Kalachuri inscriptions state that Basava was the poet philosopher who revived, refined and energized an already existing tradition. The Basavarajadevara Ragale (13 out of 25 sections are available) by the Kannada poet Harihara (c. 1180) is the earliest available account on the life of the social reformer and is considered important because the author was a near contemporary of his protagonist. A full account of Basava's life and ideas are narrated in a 13th-century sacred Telugu text, the Basava Purana by Palkuriki Somanatha.

Basava literary works include the Vachana Sahitya in Kannada Language. He is also known as Bhaktibhandari (lit. 'the treasurer of devotion') and Basavanna.

Early life



Arjunavād inscription of the Seuna king Kannara, dated 1260 CE. An inscription related to Basava and his family details. Names references Basavaraj and Sangana Basava.

Basava was born in 1131 CE[1] in the town of Basavana Bagewadi in the northern part of Karnataka, to Maadarasa and Madalambike, a Kannada Orthodox Brahmin family devoted to the Hindu deity Shiva. He was named Basava, a Kannada form of the Sanskrit Vrishabha in honor of Nandi bull (carrier of Shiva) and the local Shaivism tradition.

Basava grew up in Kudalasangama (northwest Karnataka), near the banks of rivers Krishna and its tributary Malaprabha. Basava spent twelve years studying in the Hindu temple in the town of Kudalasangama, at Sangameshwara then a Shaivite school of learning, probably of the Lakulisha-Pashupata tradition.

Basava married Gangambike, a cousin from his mother's side. Her father was the provincial prime minister of Bijjala, the Kalachuri king. He began working as an accountant to the court of the king. When his maternal uncle died, the king invited him to be the chief minister. The king also married Basava's sister named Nagamma.

As chief minister of the kingdom, Basava used the state treasury to initiate social reforms and religious movement focussed on reviving Shaivism, recognizing and empowering ascetics who were called Jangamas. One of the innovative institutions he launched in the 12th century was the Anubhava Mantapa, a public assembly and gathering that attracted men and women across various walks of life from distant lands to openly discuss spiritual, economic and social issues of life. He composed poetry in local language, and spread his message to the masses. His teachings and verses such as Kāyakavé Kailāsa (Work is the path to Kailasa [bliss, heaven], or work is worship) became popular.

Literary works

Vachana sahitya

Several works are attributed to Basava, which are revered in the Veerashaiva Lingayat community. These include various Vachana such as the Shat-sthala-vachana (discourses of the six stages of salvation), Kala-jnana-vachana (forecasts of the future), Mantra-gopya, Ghatachakra-vachana and Raja-yoga-vachana.

Hagiography

The Basava Purana, a Telugu biographical epic poem, first written by Palkuriki Somanatha in 13th-century, and an updated 14th century Kannada version, written by Bhima Kavi in 1369, are sacred texts in Veerashaiva Lingayat.

Other hagiographic works include the 15th-century Mala Basava-raja-charitre and the 17th-century Vrishabhendra Vijaya, both in Kannada.

Authenticity

Scholars state that the poems and legends about Basava were written down long after his death. This has raised questions about the accuracy and creative interpolation by authors who were not direct witness but derived their work relying on memory, legends, and hearsay of others. Michael states, "All 'Vachana' collections as they exist at present are probably much later than the 15th-century [300 years post-Basava]. Much critical labor needs to be spent in determining the authenticity of portions of these collections".

Philosophy

Basava grew up in a Shaivite family. As a leader, he developed and inspired a new devotional movement named Virashaivas, or "ardent, heroic worshippers of Shiva". This movement shared its roots in the ongoing Tamil Bhakti movement, particularly the Shaiva Nayanars traditions, over the 7th- to 11th-century. However, Basava championed devotional worship that rejected temple worship and rituals led by Brahmins and replaced it with personalized direct worship of Shiva through practices such as individually worn icons and symbols like a small linga. This approach brought Shiva's presence to everyone and at all times, without gender, class or caste discrimination. Basava's poem, such as Basavanna 703, speak of strong sense of gender equality and community bond, willing to wage war for the right cause, yet being a fellow "devotees' bride" at the time of their need.

A recurring contrast in his poems and ideas is of Sthavara and Jangama, that is, of "what is static, standing" and "what is moving, seeking" respectively. Temples, ancient books represented the former, while work and discussion represented the latter.

Basava emphasized constant personal spiritual development as the path to profound enlightenment. He championed the use of vernacular language, Kannada, in all spiritual discussions so that translation and interpretation by the elite is unnecessary, and everyone can understand the spiritual ideas. His approach is akin to the protestant movement, states Ramanuja. His philosophy revolves around treating one's own body and soul as a temple; instead of making a temple, he suggests being the temple. His trinity consisted of guru (teacher), linga (personal symbol of Shiva) and jangama (constantly moving and learning).

Basava established, in 12th-century, Anubhava Mantapa, a hall for gathering and discussion of spiritual ideas by any member of the society from both genders, where ardent devotees of Shiva shared their achievements and spiritual poems in the local language. He questioned rituals, dualism, and externalization of god, and stated that the true God is "one with himself, self-born".

While Basava rejected rituals, he encouraged icons and symbols such as the wearing of Istalinga (necklace with personal linga, symbol of Shiva), of Rudraksha seeds or beads on parts of one body, and apply Vibhuti (sacred ash on forehead) as a constant reminder of one's devotion and principles of faith. Another aid to faith, he encouraged was the six-syllable mantra, Shivaya Namah, or the shadhakshara mantra which is Om Namah Shivaya.

Bhakti marga as the path to liberation

The Basava Purana, in Chapter 1, presents a series of impassioned debates between Basava and his father. Both declare Hindu Sruti and Smriti to be sources of valid knowledge, but they disagree on the marga (path) to liberated, righteous life. Basava's father favors the tradition of rituals, while Basava favors the path of direct, personal devotion (bhakti).

According to Velcheru Rao and Gene Roghair, Basava calls the path of devotion as "beyond six systems of philosophy. Sruti has commended it as the all-seeing. the beginning of the beginning. The form of that divine linga is the true God. The guru [teacher] of the creed is an embodiment of kindness and compassion. He places God in your soul, and he also places God in your hand. The six-syllabled mantra, the supreme mantra, is its mantra. The dress – locks of hair, ashes and rudrashaka beads – place a man beyond the cycle of

birth and death. It follows the path of liberation. This path offers nothing less than liberation in this lifetime."

Roots in the Vedanta philosophy

Sripati, a Virasaiva scholar, explained Basava's philosophy in Srikara Bhasya, using the Vedanta Sutra, suggesting Basava's Lingayat theology to be a form of qualified nondualism, wherein the individual Atma (soul) is the body of God, and that there is no difference between Shiva and Atma(self, soul), Shiva is one's Atma, one's Atma is Shiva. Sripati's analysis places Basava's views in Vedanta school, in a form closer to the 11th century Vishishtadvaita philosopher Ramanuja, than to Advaita philosopher Adi Shankara. However, Sripati's analysis has been contested in the Virasaiva community.

Legacy and influence

Kudala sangama in Bagalkot district, where Basava's samadhi is located.

Modern scholarship relying on historical evidence such as the Kalachuri inscriptions state that Basava was the 12th-century poet-philosopher who revived and energized an already existing tradition. The community he helped form is also known as the Sharanas. The community is largely concentrated in Karnataka, but has migrated into other states of India as well as overseas. Towards the end of the 20th century, Michael estimates, one-sixth of the population of the state of Karnataka, or about 10 million people, were Veerashaiva Lingayat or of the tradition championed by Basava. Veerashaiva Lingayat constitutes around 17% of Karnataka's population and has dominance over 100 out of 223 constituencies. Among the total of 23 chief ministers that Karnataka had since 1952, 10 were from Lingayat community.



Social reform



A necklace with pendant containing linga symbol of Shiva are worn by devotees of the tradition championed by Basava. Rudraksha beads (shown above) and Vibhuti (sacred ash on forehead) are other reminders of one's principles of faith.

Basava taught that every human being was equal, irrespective of caste, and that all forms of manual labor was equally important. Michael states that it wasn't birth but behavior that determined a true saint and Shaiva bhakta in the view of Basava and the Sharanas community. This, writes Michael, was also the

position of south Indian man, that it was "behavior, not birth" that determines the true man. One difference between the two was that Sharanas welcomed anyone, whatever occupation he or she might have been born in, to convert and be reborn into the larger family of Shiva devotees and then adopt any occupation he or she wanted. Basava insisted on ahimsa or non-violence and vehemently condemned all forms of sacrifices, human or animal.

Synthesis of diverse Hindu traditions

Basava is credited with uniting diverse spiritual trends during his era. Jan Peter Schouten states that Virashaivism, the movement championed by Basava, tends towards monotheism with Shiva as the godhead, but with a strong awareness of the unity of the Ultimate Reality.[34] Schouten calls this as a synthesis of Ramanuja's Vishishtadvaita and Shankara's Advaita traditions, naming it Shakti-Vishishtadvaita, that is monism fused with Shakti beliefs. An individual's spiritual progress is viewed by Basava's tradition as a six-stage Satsthalasiddhanta, which progressively evolves the individual through phase of the

devotee, to phase of the master, then phase of the receiver of grace, thereafter Linga in life-breath (god dwells in their soul), the phase of surrender (awareness of no distinction in god and soul, self), to the last stage of complete union of soul and god (liberation, mukti). Basava's approach is different from Adi Shankara, states Schouten, in that Basava emphasizes the path of devotion, compared to Shankara's emphasis on the path of knowledge – a system of monistic Advaita philosophy widely discussed in Karnataka in the time of Basava.

Jessica Frazier et al. state that Basava laid the foundations of a movement that united "Vedic with Tantric practice, and Advaitic monism with effusive Bhakti devotionism."

Icons and symbols

The bust of Basava, unveiled in London in 2015, facing the UK Parliament

Basava advocated the wearing of Ishtalinga, a necklace with pendant that contains a small Shiva linga. He was driven by his realization; in one of his Vachanas he says Arive Guru, which means one's own awareness is his/her teacher. Many contemporary Vachanakaras (people who have scripted Vachanas) have described him as Swayankrita Sahaja, which means "self-made".



Monuments and recognition

The then President of India Abdul Kalam inaugurated Basaveshwara's statue on 28 April 2003 in the Parliament of India.

Basaveshwara is the first Kannadiga in whose honour a commemorative coin has been minted in recognition of his social reforms. The former Prime Minister of India, Dr Manmohan Singh was in Bengaluru, the capital of Karnataka to release the coins.

On 14 November 2015 The Prime Minister of India Narendra Modi inaugurated the statue of Basaveshwara along the bank of the river Thames at Lambeth in London.

Basava Dharma Peetha has constructed 108 ft (33 m) tall statue of Basava in Basavakalyana.

Vishwaguru Basaveshwara Statue is constructed in the year 2015 next to the lake in Gadag district of Karnataka. This is the tallest standing basaveshwara statue with the height of 111ft.

Chief Minister Siddaramaiah and Forest Minister Eshwar Khandre hold an image of Basaveshwara, also known as Basavanna, a social reformer, philosopher and poet revered by Lingayats. Several seers had urged the CM to declare Basavanna a cultural leader. Karnataka government has agreed to declare 12th century social reformer Basaveshwara (referred to as Basavanna) as Karnataka's "cultural leader."

This is for the first time that the State has declared anyone as a "cultural leader", said Forest Minister Eshwar Khandre, who is also General Secretary of Akhila Bharatha Veerashaiva Mahasabha. He told presspersons after the Cabinet decision that Maharashtra has earlier declared Chatrapathi Shivaji as a "cultural leader."

The Minister said that the teachings of Basavanna and values on a casteless society is apt for the current society. When asked if this decision was political and aimed at appeasing the Veerashaiva community (for whom Basavanna is an icon) just before elections, Mr. Khandre said, "This decision has no connection with Lok Sabha elections". Earlier, in December the Akhila Bharatha Veerashaiva Mahasabha at its convention had resolved to ask the government to declare Basavanna as cultural leader of the State. The Mahasabha has thanked the government for taking the decision.

Contributions of Basavanna

Contributions of Basavanna consist of Socio-political, Literary, Spiritual, and philosophical contributions. Some of them are as follows

✚ **Socio-Political Contributions**

- ❖ Equality: Regardless of caste, Basava thought that all people were formed as equals. To combat caste, class, and gender inequality, Basavanna joined forces with several other followers.
- ❖ Women's empowerment: One of his numerous contributions to the renewal of today's tradition-bound society was his recognition of women's identity and rights. There is no denying that a society's view of women's status is a key indicator of its level of culture.
- ❖ Veerashaiva movement: Basavanna was a strong proponent of social change. He advanced to become the movement's leader for Veerashaiva. He established a cult that is still well-known today. The previous class of priests was eliminated. The mass dissemination of the ultimate truth was decided upon using the vernacular. It gave women a significant place in social and religious life. It gave everyone, regardless of wealth or poverty, a single ideal realization.
- ❖ Anubhava Mantapa: Basavanna firmly believed in the idea of a caste-free society where everyone had an equal opportunity to succeed. He founded the AnubhavaMantapa, a Lingayata academy of mystics, saints, and philosophers, to accomplish the noble goal. It acted as a clearinghouse for ideas regarding universal human values and ethics. Anubhava Mantapa has been referred to as "The First Religious Parliament of the World" by the late Dr S. Radhakrishnan, a prominent philosopher and former president of India.
- ❖ Promoted inter-caste marriages: The social revolution of the twelfth century reached its pinnacle with the union of a Brahmin woman and an outcast cobbler's son from Harijan.
- ❖ Pioneer of Democracy: A democratic social structure was to be established as Basavanna's strong and ultimate goal.
- ❖ Gender equality: According to Basavanna, in the early Vedic era, men and women had equal rights. The wife and husband were regarded as being on an equal footing and shared in all social and religious obligations.
- ❖ Promotion of local language: The people's local language should be used as the medium for delivering secular and spiritual education.
- ❖ Respect towards women: Basavanna describes how women should be viewed in seven vachanas. In all of these vachanas, Basavanna emphasizes to his followers that it is wrong to want the wife of another man and that it is even worse to view a woman as anything other than a sister or mother. As a result, he creates a set of guidelines for his adherents.
- ❖ Rejected caste system: He strongly opposed the caste system and the idea that some communities are superior to others, and he rid his associates of any sense of superiority or inferiority complexes.
- ❖ Dignity of labor: By claiming that work is worship. He argued that all manual labour should be viewed with love and regard, even the grunt work people detested.

✚ **Literary Contributions**

- ❖ Covered every shade of expression: From the utterance of seekers who have suffered from social injustices and differences to the joyful exclamation of the experience of Divine Bliss, his artistry has spanned every shade of expression.
- ❖ Denied superiority of Sanskrit in literature: Basava produced numerous vachanas. Writing religious and ethical literature in Sanskrit was customary before the advent of Basava. However, Basava started composing them in the common people's language, Kannada.
- ❖ Reached the heart of the reader: Basavanna has done a commendable job of having each topic he addressed resonate with the reader's emotions. His vivid imagination

and the emergence of figures and pictures were the results of his rich life experience, perceptive insight, and flexible brilliance.

- ❖ Vachanas: Basavanna promoted social awareness through his poetry, known as Vachanas. The Shat-sthala-vachana (discourses on the six phases of salvation), Kala-jnana-vachana (forecasts of the future), Mantra-gopya, Ghatna Chakra-vachana, and Raja-yoga-vachana are only a few examples of the different Vachana that fall under this category.

✚ **Spiritual And Philosophical Contributions**

- ❖ Humanism: Basavanna was a well-known humanist who promoted a new way of living in which caste, gender, and social distinctions were meaningless and the divine experience was at the centre of existence.
- ❖ Kayaka-Work Doctrine: According to Basaveshwara's philosophy of Kayaka (Work doctrine), everyone should earn their living by labour performed not just with the sweat of their brow but also to dedicate that labour to God. Work is viewed spiritually in Kayaka.
- ❖ Monotheism: The profound monotheistic belief in God as the absolute and highest Self known as Lord Shiva served as the movement's cornerstone.
- ❖ Promoted devotional worship: Devotional worship, which rejected Brahmin-led temple practices, was espoused by Basavanna. He was in favour of personalized, direct worship of Shiva through rituals like wearing icons and symbols like little lingas on one's person.
- ❖ Denied orthodox funeral practice: The Lingayats hold that there would be no return to this world after death since they will immediately join Lingaikya, who is considered to be God. Therefore, the Lingayats do not require traditional funeral grounds and bury their deceased as is customary for holy men.
- ❖ Moral teacher: People looked to Basaveshwara as a moral example of how to conduct themselves in society, live a pure life, and find salvation.
- ❖ Compassion: For Basava, compassion was not built on faith but it was supported by reason and science
- ❖ Against renunciation: Renunciation and dwelling in the forest are ruled out as cowardly tendencies to escape from life
- ❖ Reason and experience: Reason and experience are the only guiding lights for free thinking and spiritual advancement.
- ❖ Non-Violence: He strongly opposed human and animal sacrifices as a major proponent of ahimsa (non-violence).

Basavanna and Sharana movement:

The Sharana movement he presided over attracted people from all castes. Like most strands of the Bhakti movement, produced a corpus of literature, the vachanas, that unveiled the spiritual universe of the Veerashaiva saints.

- ❖ The egalitarianism of Basavanna's Sharana movement was too radical for its times.
- ❖ He set up the Anubhava Mandapa, where the Sharanas, drawn from different castes and communities, gathered and engaged in learning and discussions.
- ❖ Sharanas challenged the final bastion of the caste order, they organized a wedding where the bridegroom was from a lower caste, and the bride a Brahmin.

The legacy of Basava and his contemporaries Sharanas (commoners who attained self-realization via Lord Basava's divine guidance and grace) is undoubtedly a live tradition that can still motivate a community even nine centuries later.

The vitality of that tradition and its attractiveness, even in modern times, are primarily due to the fusion of real spirituality and social awareness.

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CHALLENGES AND PROSPECT OF THE ACQUISITION AND APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES TO LIBRARY SERVICES

Dr. Ravichandra Naika

Librarian (SGL), Dr.P.Dayananda Pai. P Sathish Pai
Govt First Grade College, Carstreet, Mangalore, Dakshina kannada

ABSTRACT

Every activity that is being done and carried out in the library is aimed at delivering services to the users and the community that is hosting the library. The services that libraries render cannot be overemphasized especially the Academic library. Their advantages are numerous and help towards the growth and development of the society. Libraries have continued to evolve since its operation, and the emergence of Information and Communication Technologies (ICTs) has changed a lot about librarianship all over the world. Many new concepts are being introduced, yet, not without their challenges and prospects. No academic library is devoid of challenges; these challenges can make or mar the potentials that academic libraries offer if not properly managed.

Keywords: Information and Communication Technologies, libraries, library personnel, service delivery

Introduction

Recent developments in Information and Communication Technologies (ICT) have characterized new ways of information generation, managing, and dissemination. The advancements in ICT with breakthrough in transient and permanent information storage technology have not only reduced the cost of infrastructure required for hosting digital libraries, but also demonstrated success in a wide variety of projects across the world. This chapter addresses and documents the emergence of digital technologies, the purpose and characteristics of digital libraries, and digitization policy. It also elaborates the process of digitization including the hardware and software requirements. This chapter also focuses on major digitization initiatives and the challenges of digitization.

Emergence of Digital Technologies

During medieval period, emergence of printing technology and subsequent use of paper revolutionized library culture and brought a social change. Over centuries, paper technology remained quite stable. Although paper technology had many drawbacks but books became common and large libraries started to include hundreds and thousands of books in their collection. However, overcoming the problem of brittleness of books through deacidification and reformatting has caused slow decay of paper-based documents, creating a need for better storage media (Ashraf, 2010). For such problems, introduction of ICT in early 1930s played a major role in changing the information world when libraries started using some sort of technology to transact business. During this period, punch card equipment was implemented for use in library circulation and acquisitions (Mutula, 2007). According to Bush (1945), memex was described as a mechanical library to allow a user to view stored information from several different access



points and look at several items simultaneously. His ideas were later used in the basic hypertext operations. During 1940s, IBM produced Mark series of computers. Later technological breakthrough in semi-conductivity has led to increase in computing speed and miniaturization of computers and consequently the reduction in costs of computers. During 1950s and 1960s the digital computers were accessible to universities and defence organization in India. During 1970s with the introduction of mini-computers, large commercial organizations started using computers for their computational needs.

By the early 1990s, growth in the electronic communication of data among different libraries took place. Librarians by now started having access to reference information and bibliographic data using dial-up connection to a local computer that would route information to the host machine. Thus, with the advent of personal computers, local- and wide-area networks, and the movement from centralized to distributed client-server processing that libraries of all types were able to utilize the power of computing technology to share information and resources, generate management reports, and electronically link libraries together (Deegan & Tanner, 2002). Moreover, universal accessibility of digitized resources 24x7 made digital technologies most popular choice among researchers.

Information and Communication Technologies over the years have proven to be very useful in the library environment for easy service delivery. However, library personnel could find it difficult to render effective service without the deployment and integration of ICTs in the library particularly in this digital age and users may seek for needed information from another source rendering library personnel irrelevant.

Types and purpose of ICT in the library

Information and Communication Technology tools have become the backbone of library services. Libraries can store huge amount of information using new technologies and transmit this information to anywhere and anytime without any geographical boundaries. There are different types of ICT tools that can be applied in the library for efficient services delivery. Perera and Chandra (2010) listed some of the types of ICT tools as computing technology (hardware/software); Communication technology; Network and Internet technology; Web world; Printers/Publishing technology; and Reprographic and micrographic technology. Similarly, other ICT resources as identified by Vijayakumar and Vijayan (2011) include; Internet, electronic databases, Online Public Access Catalogue (OPAC), union catalogue, (A union catalog is a combined library catalog describing the collections of a number of libraries.

Factors Influencing Libraries' Acquisition of New Resources

The availability of digital versions of print resources is the second most important driver of acquisition strategies: 48% of librarians report this to be a "strong" driver with an additional 40% reporting it to be a "moderate" one. This reflects researchers' preference for electronic information resources over print, and libraries' shortage of space to store print resources.

Finally, it is worth noting librarians' views as to the implications of an institution's research community starting new interdisciplinary or cross-disciplinary work. For 37% of librarians this would be a "strong" driver for acquiring appropriate information resources specifically to serve this new need, for 43.5% it would be a "moderate" driver.



Components of ICT

The term information and communications technology (ICT) is generally accepted to mean all technologies that, combined, allow people and organizations to interact in the digital world.



But for 15% it would be a “weak” driver. While these figures indicate the majority of librarians would take the new need seriously, it is clear that the imperative to provide for teaching and learning is more important in relative terms.

Managing expectations: library funding

Librarians have a constant struggle to balance the demands for the support of research and of teaching with tight budgets. Researchers are well aware of this because for many years they have been involved in the annual round of discussions about journal subscription cancellations, new journal purchase, book budgets, and how to assign priorities for library purchasing. Researchers understand the problems faced by their libraries and that the price of current journal literature in particular has risen over the last decade or so at a rate out of line with library budget increases. Researchers are sympathetic to the plight of librarians on this issue, and concerned in particular about the increasing pressure on the provision of materials to support their research. Funding for the library, and the priority given to this within overall institutional budgets, is a matter of concern to researchers as well as librarians. The Parry Report in the 1960s recommended that library budgets should be 6% of a university’s total spending (at the time they were around 4-5%); but library budgets have tended to fall since then, and now stand at around 3% of total institutional budgets. To some researchers this comes as a surprise; they expected it to be more shows the responses gave when we asked them what priority they thought should be given to funding the library, within the context of competing demands from other parts of the institution for a finite pot of money. It shows clearly that most researchers, especially in the arts and humanities, believe that funding the library should be near the top of their institution’s priority list. Support from arts and humanities researchers is perhaps unsurprising, since they make the most use of libraries. It is clear, however, that support comes from right across the research community: the majority think that their library services deserve high or top funding priority.



Challenges Influencing ICTs in Academic Libraries

While new technologies have added value to library services by presenting new modes of Collecting, storing, retrieving and providing information, they have also brought new challenges and aggravated some of the challenges that faced libraries before (Emmanuel and Sife, 2008). Ferbam and Ogunjobi (2009) revealed that ICT facilities is not available due to in adequate funding, poor infrastructure, management problem and lack of qualified Personnel to manage the ICT Centre’s. Ghuloum and Ahmed (2011) have indicated that Several factors such as financial factors, technological factors, human factors and cultural Factors may be a barrier in ensuring application of ICTs. These have included factors such as a lack of sufficient funds, lack of qualified library professionals, lack of motivation and Need among library staff to adopt ICT in their daily operations and the authors also Highlighted the barriers faced libraries are lack of adequate library staff, lack of ICT Training programs, and low priority of libraries within their organization. Siddike et al., (2011) identified some of the barriers existing in the libraries namely lack of support high authorities, lack of computer literate among library professionals, uninterruptible Internet connection, lack of skilled manpower, lack of ICT related knowledge and lack of ICT Training.



Financial Factors

Libraries require sufficient funds to acquire modern ICT facilities such as computers, Servers, scanners, photocopiers, software as well as paying for online and offline services Such as e-journals and digital libraries. Most of these ICT facilities and services are very Expensive and can be purchased from developed countries. On the contrary, experience Reveal that most university libraries in Africa and other developing countries get very little Funds from their parent institutions and the government for support of their activities (Mutula and Wamukoya, 2007). This situation is attributed to among other factors, the poor Perception of library services by top leaders and other stakeholders in the parent Institutions. In addition, the little funds received fall far below the standard costs of ICT facilities and services. Academic libraries just like other departments in institutions of higher learning require sufficient funds in order to acquire modern ICT facilities such as computers, servers, scanners, photocopiers, software as well as buy or subscribe to online or offline resources Such as e-journals, e-books and digital books among other resources.

Technological Factors

Low bandwidth is the main problem that affects the accessibility of information in time. Bandwidth refers to the amount of information that can be carried in a given time period (usually a second) over a wired or wireless communication link, expressed as bits per second (Emmanuel and Sife, 2008). The higher the bandwidth, the more data can be transferred in bits per second. Whenever there are few data transferred in bits per second (low bandwidth), users get frustrated as it takes long to retrieve information from the Internet. Inadequate technological infrastructure to support the integration of ICTs in the library functions has been cited by several authors as one of the major challenge that academic libraries face. Kamba (2011) noted that ICT is not very well spread and utilized in African institutions of higher learning, mainly because of poor communication network, limited access to ICT hardware and software. This refers to issues as poor or lack of ICT policy, low Internet connectivity, inadequate supply of electricity, inadequate number of PCs, etc. A study by Rosenberg (2005) showed that 85 percent of the libraries provide less than one computer for every 100 students and 36 percent provide less than one computer for every 500 students. Despite the poor students computer ratio, Kamba (2011) added that there is a serious neglect of ICT resources acquired over a period of years, which need upgrading or are out of usage and this increases the complexity of managing the ICT resources.



The organization culture, library leadership and trained library personnel play a pivotal role in determining the role and status of academic libraries. Several authors (Emmanuel and Sife, 2008; Odero-Musakali and Mutula, 2007) have identified that lack of trained Personnel and negative attitude of university management on Information and Communication Technology as major factors that impede effective adoption of ICT in university libraries. Emanuel and Sife (2008) add that many libraries have inadequate qualified ICT personnel with most traditional library staff having low ICT skills and sometimes have technology phobia. Without dequate supply of appropriately trained and skilled personnel, the ability to provide quality information services may be inhibited.

Cultural Factors

Socio-cultural aspects like cultural values, regional priorities, institutional relations, political dynamics, and educational background influence the perception of potential user

groups, and therefore have an impact on the adoption and use of the technology (Hagenaars, 2007).

In their study, Gould and Gomez (2010) found out that in most countries, libraries are still being regarded as a place to study or store books thus many users doubt whether it is a „cool“ place to go, and whether it responds to their needs, such as providing current information. Many people still think that computers can only be found in cyber cafes and computer labs but not inside libraries. There is need for library management and library personnel to change this notion in order to encourage more users to visit the library and utilize ICT resources.



Human Factors

The organization culture, library leadership and trained library personnel play a pivotal role in determining the role and status of academic libraries. Several authors (Emmanuel and Sife, 2008; Odero-Musakali and Mutula, 2007) have identified that lack of trained personnel and negative attitude of university management on Information and Communication Technology as major factors that impede effective adoption of ICT in university libraries.

Conclusion

In conclusion, the acquisition and application of ICT present both challenges and prospects for library services. While financial constraints, digital divides, privacy concerns, and technological obsolescence pose significant hurdles, the potential benefits of ICT in enhancing access, efficiency, and innovation are immense. By addressing these challenges through strategic planning, resource allocation, and user-centered approaches, libraries can harness the power of ICT to fulfill their mission of providing equitable access to information and knowledge for all.

Information and Communication Technology (ICT) is the means of accessing or receiving, storing, transferring, processing and sending ideas, perception or information through computers and other communication facilities. Academic libraries are all those libraries that are established and run by academic institutions like the universities and other tertiary institution to support teaching, learning and research.

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A STUDY ON THE VIJAYANAGARA EMPIRE “A CITY OF VICTORY”

Dr. Mallikarjuna R Jarakunti

Assistant Professor, Dept of History
B V V S Shri S R Kanthi Arts Commerce and Science College,
Mudhol, Bagalkot District

ABSTRACT

Founded in 1336 in the wake of the rebellions against Tughluq rule in the Deccan, the Hindu Vijayanagar empire lasted for more than two centuries as the dominant power in south India. Its history and fortunes were shaped by the increasing militarization of peninsular politics after the Muslim invasions and the commercialization that made south India a major participant in the trade network linking Europe and East Asia. Urbanization and monetization of the economy were the two other significant developments of the period that brought all the peninsular kingdoms into highly competitive political and military activities in the race for supremacy.

Keywords: Sangama Dynast, Harihara and Bukka, Hampi, River thungabadhra

Introduction

The Vijayanagara Empire, also called the Karnata Kingdom, was the most prominent Hindu empire of Deccan India established on the banks of River Tungabhadra in present-day Karnataka and consisted of the modern states of Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, Goa and some parts of Telangana and Maharashtra. The Vijayanagara Empire was established in 1336 by the brothers Harihara I and Bukka Raya I of the Sangama dynasty. The Vijayanagara period was the golden age of literature in South India.

Origin of the Vijayanagar Empire

The Vijayanagara Empire, also known as the Karnata Kingdom or Vijayanagara Samrajya, was established in 1336 CE on the southern banks of river Tungabhadra in the present state of Karnataka in India. The Capital of the Vijayanagara Empire was the city of Hampi (currently in Karnataka). Hampi is declared a World Heritage Site by UNESCO. Geographically, it lies close to the Deccan Plateau of South India. The founder of the Vijayanagara Empire was the brothers Harihara and Bukka, belonging to the Sangama Dynasty. Harihara and Bukka were members of a pastoralist cowherd community that claimed to be of the Kuruba lineage. Both Harihara and Bukka had also served under the Hoysala King, Vira Ballala III. The Vijayanagara period was the golden age of literature in South India.

The Empire was divided for administrative purposes into several provinces such as rajya, mandala and chavadi. Which again was sub-divided into venthe- A territorial division higher than a nadu, nadu- A territorial division higher than a village, sima- A portion of land comprising several fields village and sthala- A territorial division higher than a parru, which was again higher than a nadu. According to H. Krishna Shastri, the empire was divided into six provinces. Each province was under a viceroy, nayaka or naik, who might be a member of the royal house or an influential noble of the State, or some descendents of the old ruling families. Each viceroy exercised civil, military and judicial powers within his jurisdiction, but he was required to submit regular accounts of the income and expenditures of his charge



to the central government and render it military aid in times of need. Further he was liable to severe punishment by the king if he proved to be a traitor or oppressed the people, and his estate could be confiscated to the state if he made default in sending one-third of his income to the king. Though the naik were severe in raising revenue from the people, they were not unmindful of the beneficial work like the encouragement of agriculture, the plantation of new villages, protection of religion and erection of temples and other buildings.

Geographical Spread of the Vijayanagar Empire

- At its peak, the Vijayanagara Empire influenced almost all of South India's ruling families.
- The Vijayanagara Empire rulers also pushed the Sultans of the Deccan beyond the Tungabhadra-Krishna River Doab region.
- The Vijayanagara Empire also annexed modern-day Odisha (erstwhile Kalinga) from the Gajapati Kingdom of Kalinga, Odisha.
- The empire peaked during the rule of Krishna Deva Raya when the Vijayanagara armies were consistently victorious

Important Dynasties of the Vijayanagar Empire

The most important Vijayanagara dynasty is mentioned below:

- Sangama Dynasty (1336 CE – 1485 CE)
- Saluva Dynasty (1485 CE – 1505 CE)
- Tuluva Dynasty (1491 CE – 1570 CE)
- Aravidu Dynasty (1542 CE – 1646 CE)

Important Rulers of the Vijayanagar Empire

The list of Important Rulers of the Vijayanagar Empire is as follows:

Harihara (1336 – 1356 A.D.)

- Harihara was the founder of the Vijayanagara Empire along with his brother Bukka Raya.
- Harihara I became the ruler of the Sangama Dynasty in 1336 CE.
- He captured Mysore and Madurai from the Southern Empires.
- He was succeeded by Bukka I in 1356 CE.

Krishnadeva Raya (1509 – 1529 A.D.)

- He was also known as the 'Andhra Bhoj'.
- He belonged to the Tuluva Dynasty and ruled over Vijayanagar Empire from 1509-1529 CE.
- He is regarded as the most prominent and famous king of the Vijayanagar Empire.
- Portuguese traveller Domingo Paes regarded "Krishnadeva Raya as the most feared and perfect king there could be."
- Krishnadeva Raya captured Sivasamudram in 1510 CE and Raichur in 1512 CE.
- He captured Orissa and Warangal in 1523 CE.
- The Vijayanagar empire under him extended from the river Krishna in the north to River Cauvery in the south and from the Arabian Sea in the west to the Bay of Bengal in the east.



Contributions of Krishna Deva Raya to the Vijayanagar Empire

- He was an efficient administrator, and he also built large tanks & canals for irrigation.

- He also created extensive naval power, which boosted the overseas trade of the Vijayanagar Empire.
- He also maintained cordial relations with the Portuguese and Arab traders.
- All this helped him to enhance the revenue of the Vijayanagar Empire.
- Krishnadeva Raya was also a learned & great scholar.
- He also patronised art and architecture extensively.
- The Vijayanagar Empire reached its highest growth point during the reign of Krishnadeva Raya.

Eight Scholars in the Court Krishna Deva Raya

- Allasani Peddanna – Who was the author of 'Manucharitam' and 'Andhra Kavita-pitamaha'.
- Nandi Thimmana – Who authored the 'Parijatapaharanam'.
- Madayyagari Mallana
- Dhurjati
- Ayyalaraju Ramabhadra Kavi
- Pingali Surana
- Ramaraja Bhushana
- Tenali Ramakrishna

Administration of Vijayanagar Empire

- Vijayanagar Empire had a well-organized administrative system.
- The King was the state's main power and the final decision-making authority of all the matters in the state.
- There also existed a Council of Ministers, which assisted the King in administrative work.
- The Vijayanagar Empire was divided into 6 provinces.
- There existed a Governor called 'Naik' to administer each province.
- Further, the provinces were divided into districts.
- And these districts were again divided into smaller units called villages.
- Such villages were administered by various hereditary officers like accountants, watchmen, weights men and officers in charge of the forced labour department.
- There also existed an officer called 'Mahanayakacharya' who worked as a bridge between the villages and the central government/administration.

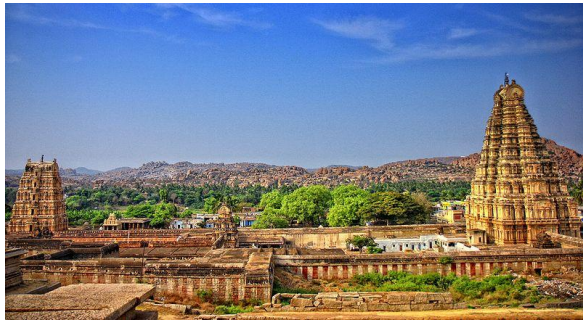
The Vijayanagar rulers inherited and continued to maintain a healthy and vigorous system of local administration with the village as the lowest unit. Each village was a self sufficient unit. The village assembly like the Panchayat of Northern India, conducted the administration of the area under its charge- executive, judicial and police, through its hereditary officers like the senateova or the village accountant, the talara or the village watchman or the commandant, the begara or the superintendent of forced labour and others. Grants of land or a portion of agricultural produce paid these village officers. The king maintained a link with the village administration through his officer called Mahanayakacharya who exercised a general supervision over it.

- i. **King:** The vijaynagar Empire gradually developed a centralised administration with all its branches carefully organised. The king was the head of all power in the Vijaynagar State. He was the authority in civil, military as well as judicial affairs and also often intervened to settle social disputes. But he was not an irresponsible despot. Neglecting the interests



of the kingdom and ignoring the rights and wishes of the state. The King was assisted in the task of administration by a council of ministers, appointed by him. A magnificent court was maintained by the kings of vijaynagar in the capital city at a huge cost of money. Nobles, princes, literatures, astrologers and musicians, attended it and festivals were celebrated with great pomp and grandeur.

- ii. **Council of Ministers:** Though the Brahmanas held high offices in the administration and had considerable influence, the ministers were recruited not only from the rank but also from those of the Kshatriyas and the Vaishyas. The office of a minister was sometimes hereditary and sometimes rested on selection. Abdur RAzaq and Nuniz refer to the existence of a sort of secretariat. Besides the ministers, the other officers of the State were other chief treasurer; the custodians of the jewels; an officer who was to look after the commercial interests of the State; the prefect of police, who was responsible for the prevention of crime and maintenance of order in the city; the chief master of the horse; the subordinate officials like the 'bhats', who sang the praise of the kings, the betel – bearers or personal attendants of the king, the calendar makers, the engravers and the composer of inscriptions



- iii. **REVENUE:** Land revenue known as *sist*, was the principal source of income of the Vijaynagar State. It had an efficient system of land revenue administration, under three heads for the purpose of assessments' to be paid by the tenants. To meet the heavy burden of the State and solve the problem of obtaining men and money to withstand its enemies, the Vijaynagar emperors gave up the traditional rate of assessments at one-sixth of the produce and increased it to some extent. The Vijaynagar rulers adopted the "principle of differential taxation", that is, levied taxes according to the relative fertility of the lands. Besides the land tax, the ryots had to pay other kinds of taxes like grazing tax, marriage tax etc. other source of income of the State were the revenue from customs duties, tolls on roads, revenue from gardening and plantations; and taxation; and taxes levied on dealers in goods of common consumption, Manufacturers and craftsmen, potters, washermen, shoemakers, barbers, mendicants, temples and prostitutes. Taxes were paid both in cash and kind.

Revenue Administration

- The main source of income for the Vijaynagar Empire was land revenue.
- Proper surveys of the land were conducted, and then taxes were fixed based on the fertility of the soil.
- Significant importance was laid on the growth of agriculture by constructing a large number of dams and canals.
- **Judiciary:** The king as the supreme judge, but there were regular courts and special judicial officers for the administration of justice. Sometimes, the State officials with the co-operation of the local bodies settled disputes. The only law of the land was not the law of the Brahmanas, but was based on traditional regulations and customs strengthened by the constitutional usage of the country, and its observance was strictly enforced. Severe punishment was inflicted on guilty persons. These penalties were chiefly of four kinds- fines, confiscation of property, ordeals and death. Death or mutilation was the punishment of crimes like thefts,

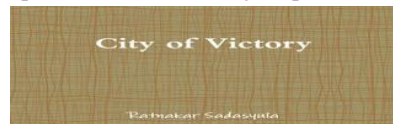
adultery and treason. Sometimes criminals were cast down before the feet of an elephant, that they may be killed by its knees, trunk and tusks. Official oppression in the sphere of justice was not absent, but the State occasionally granted remedies against it, and it was also sometimes successfully checked by the united opposition of corporate bodies.

Judicial Administration

- The King was considered their supreme judge.
- There were provisions of extreme punishments for the guilty person.
- Also, those who violated the law were suitably punished, and fines were levied on them.
- **Military:** The rulers of Vijayanagar had a carefully organised military departments called 'Kandachara', under the control of the Dandanayaka or Dannayaka (commander-in-chief) who was assisted by a staff of minor officials. The State maintained a large and efficient army, the numerical strength of which was not, however uniform all through. The regular troops of the king were, in times of need, reinforced by auxiliary forces of the feudatories and nobles. The several component parts of the army were the infantry, recruited from people of different classes and creeds, occasionally even including Muslims; the cavalry, strengthened by the recruitment of good horses from Ormuz through the Portuguese, owing to a dearth of these animals in the Empire; elephants; camels; and artillery, the use of which by the Hindus as early as A.D. 1308 is proved by the evidence of foreign accounts as well as of inscriptions.
- Vijayanagar Empire had an army which consisted of the Infantry, cavalry and elephantry.
- There also existed a Commander-in-chief who was in charge of the entire army unit.

Position of Women in the Vijayanagar Empire

- Women held a very high position in the Vijayanagar Empire.
- They were an important part of the empire's social, political and literary aspects.
- Women also gained education at par with men.
- They were also given training in wrestling and in the usage of various weapons.
- They were also trained in music and other types of fine arts.
- Some women also had the opportunity to get an education of high order.
- According to Nuniz, kings had female astrologers, clerks, accountants, guards and wrestlers.



Social Life in Vijayanagar Empire

- The society in Vijayanagar Empire was systemized.
- Practises like child marriage, polygamy, and sati were common.
- Women held a very high position in the Vijayanagar Empire.
- The kings of the Vijayanagar Empire allowed freedom of religion.

Economic Conditions in Vijayanagar Empire

- Their economic policies were mainly controlled by their irrigational policies.
- Industries like Textiles, Mining, Metallurgy, and Perfumes existed.
- Also, the Vijayanagar empire had commercial relations with the islands in the Indian Ocean, Abyssinia, Arabia, Burma, China, Persia, Portugal, South Africa and the Malay Archipelago

Contribution of the Vijayanagar Empire to the Architecture and Literature

- Krishnadeva Raya constructed the Ramaswami Temple and the Vittalaswami Temple.
- The Bronze Image of Krishnadeva Raya is another masterpiece of the Vijayanagar Empire.
- Vernacular languages like Sanskrit, Tamil, Telugu and Kannada developed during this period.
- The writer Sayana wrote commentaries on the Vedas.
- Krishnadeva Raya of the Tuluva Dynasty wrote Amuktamalyada in Telugu and Usha Prinayam and Jambavathi Kalyanam in Sanskrit.
- The Vijayanagara Empire coins issued the gold Pagoda, also known as Varaha in English, as its standard coin unit.
 - The Varaha, equivalent to 3.4 grams, was also referred to as Hon, Gadyana, or Pon. It was circulated in various denominations, including Ghattivaraha, Doddavaraha, and Suddhavaraha coins.

The decline of the Vijayanagar Empire

- The rulers after Krishnadeva Raya were weak.
- Hence, the rulers of Ahmednagar, Bijapur, Golconda & Bidar launched a combined attack on the Vijayanagar Empire during the rule of Aliya Rama Raya.
- Aliya Ram Raya was brutally defeated, and he along with his supporters was killed.
- Thus, the Vijayanagar Empire finally declined under the Battle of Tailkota in 1565 against the combined forces of the Deccan Sultanates.

Conclusion

The massive walls, which can still be traced, enclosed an area of more than sixty square miles, much of which was occupied by fields and gardens watered by canals from the river. The population cannot be estimated with precision, but it was certainly very large when judged by the standards of the fifteenth century. The great majority of the houses were naturally small and undistinguished, but among them were scattered palaces, temples, public buildings, wide streets of shops shaded by trees, busy markets, and all the equipment of a great and wealthy city. The principal buildings were constructed in the regular Hindu style, covered with ornamental carving, and the fragments, which have survived, suffice to give point to the enthusiastic admiration of the men who saw the city in the days of its magnificence.

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EXTENDED LIBRARY SERVICES POWERED BY TECHNOLOGY – A STUDY

Kalanaik

Librarian (Selection Grade)
Govt First Grade College, Honnavara

ABSTRACT

Now Days Mobile technologies and its application are playing an increasingly vital role in phone age people. Devices such as like smart phones, tablets, and e-book readers connect users to the world immediately, Advancements in networking technologies made it possible for mobile devices and application to be used in the field of education and Library services. It will be very easy access to information via mobile etc. It will also be effective and economic. Such technologies can have a great impact on learning by providing a rich, collaborative and conversational experience for Library. Therefore, this Mobile technology has become a necessary and important in Library Services. So this article seeks to explain the meaning of mobile technology and how this type technology is used for library services as well as explicate the advantages and disadvantage this technology.

Keywords: Information Technology, Libraries, Electronic Library, Digital Library, E-Resources, ICT

Introduction

The power of Information technology is greatly enhanced by communication technology by connectivity through wireless, smart phone technology or over cables and it is the crucial feature that allows access to the internet and the World Wide Web. These common platforms have stimulated an explosion of social software and cloud service that have made the internet a highly interactive medium and created new dynamics in computer use. As computing power and communication have enhanced, mobile devices play an increasingly important role, notably in the developing world. Mobile learning tools are the result of two digital converging technologies: mobile phone and computers.

The use of mobile devices for communication and information access to information communication technology applications has increased exponentially in the last decade. The smart phone networks report that nearly half the world's population now either owns a mobile phone or has access to one. A growing number of higher education institutions are experimenting with how to take advantage of on this technology especially in developing countries students are receptive to new types of ICT in principle, although their level of familiarity and comfort with each application of technology varies. Students are using mobile technology abundantly for personal purpose, while their teachers have no idea about the use of this technology to improve teaching and learning. The rate of adoption of mobile technologies in India is amongst the highest in the world and there may be almost 868 million mobile users in India.

The Library Consultant, Garland John in his online article listed diverse range of new technology powered services offered in libraries for the betterment of education in the western world. Most of which have been adopted and implemented in the developed countries to include coding clubs, digital storytelling, digital maker laboratories, and virtual reality. These technologies support learning, reading and research in different areas of endeavor.

Coding clubs

In this club domiciled in libraries, children and young adults are taught the rudiments and technicalities in using technology for coding in any format using *microbits*. The *microbits* are computers programmed with software to learn coding, do design thinking,

for ideation and to solve human related problem. These *microbits* are currently in Plymouth Libraries, England and can be borrowed for free.

✦ **Digital storytelling**

One of the vital information stored in libraries are written stories in microfilms, web pages or print media. The introduction of technology has made it possible for writers and coders to build new stories with an interactive design to immerse reader into a virtual reality of the depicted fiction. These writers and coders are also allowed to manipulate the narrative pattern and the systematic flow of the story line to make more meaningful realistic backdrop. Some of such libraries that have ventured into this line of thought are the Guildford Libraries in Surrey where a Gothic Story Jam was carried out to depict and embedden the interest of people on the creative art/fiction of Frankenstein and Emily Bronte.

✦ **Digital maker laboratories**

Libraries especially in the United Kingdom have started offering 3D and 2D printing and help small business to develop prototypes for their products to enhance market visibility. The digital maker laboratories domiciled in libraries allow customers to learn cutting-edge technology for designs on print media, fashion and instructional materials.

✦ **Virtual reality (VR)**

Libraries today enhance the learning performance of customers by incorporating virtual reality technology to encourage library patronage, learning and playing. Virtual (augmented and mixed) reality is an experience for which a physical user is made to enter a three dimensional virtual world using a headset, computer-powered imaging or mobile device. Several virtual reality devices are now available in academic libraries, e.g. the Sony developed PlayStation VR, VIVE by HTC, Cardboard by Google, Oculus Rift by Facebook, and GearVR by Samsung. These devices are used in teaching students information literacy, used for storytelling, virtual travel tours, gaming and the development of new skillset. The Ryerson University Library, Toronto currently uses the Oculus Rift. The University of Utah Library offers workshops once a week on the use of VR. VR is already been used for training medical students in University of New England and others on different types of surgical procedure inside the library through a virtually seemingly real experience.

Library users can visit a new universe right in the comfort of their local libraries. Library guide or tours have been built into virtual reality for library users and increasingly used for workshops and training in educational institutions e.g. California State Library and the Wonder Laboratory inside the Fergusson Library of Stamford, Connecticut teaches students to code their own virtual reality games from the start point. Frost et al. conducted a survey on the expanded use of virtual reality services in Harold B. Lee Libraries in Brigham Young University Idaho, United States with data showing overwhelming positive perception on the importance of virtual reality for learning inside the library. In their survey, they found that 81% love it for the sound fun, 9% personal learning, 5% for research, 2% do assignments with it, while 6% for other purposes and students and staff prepare using VR for experimentation.



✚ **Artificial intelligence (AI) in libraries**

In September 2018, the University of Rhode hosted that first cross disciplinary AI facility (laboratory) in their main library and it was made open to all students and staff of the institution. The laboratory was hosted in the library to facilitate research into robotics, and ethics in technology. The Cambridge Public Library, Harvard metaLAB and Massachusetts Institute of Technology (MIT) Library also partnered to install an AI enabled “*Laughing Room*” where students play different laugh tracks once the algorithm perceives any statement to be comic. The MIT library is already on the plan to building a collection of information resources that is readable by robots through a voice prompt for students to easily locate and access scholarly articles. A text-to-text or text-to-speech software called Chatbot is been used at the University of Oklahoma Library to assist students to find subject specific databases.

✚ **Telephony in libraries**

The Cumberland Public Library has a server called the Windows NT 2012 R2 server for the sharing of printers, documents and other files between libraries or with the public for any academic or research purpose. Their telephone system was upgraded to Voice-over Internet protocol (VOiP) technology and a Nook HD+ tablet to allow patrons access e-books if they do not have a smart device of their own.



✚ **Social media in libraries**

A recent technology based change that have occurred in libraries is the use of social media (Twitter, Facebook, WhatsApp, Blogs, etc.) for easy and prompt communication with library users in academic environments. This promotes immediate use of information when requested, induces participatory activities of students, create an atmosphere of openness and bridging the gap in decision making of library managements. Book and focal discussion groups using Blogs is made possible, and update on product and services can be noticed timely. Social media at libraries also helps in building the information literacy or train students on information seeking competence.

✚ **Libraries-ready-to-code initiative**

In partnership with technology giants like Google, one of the achievements of the American public libraries is to build and promote 21st century skills in a Libraries-Ready-to-Code Initiative. This initiative with others at the United States has help to bridge the digital literacy divide among students (teens and young adults). For example, the Hinsdale Public Library has developed a system where teens, junior grades and new adult new books are delivered in boxes at residential address through subscription economy technology. Each month those who have subscribed to this service in the library pick up their books.

✚ **Support for entrepreneurial activities**

Libraries have been part of enterprising network facilitating innovation and creativity among young one. The State Library of Victoria has become an information hub for innovators. The Pattee and Paterno Library in recent times have started students with patentable ideas through the technology driven information services available at their disposal.



Challenges with the use of trending technology in libraries

Apart from the enormous benefits that came with the intersection of technology in libraries, there are several complimentary. These include the lack of technical know-how, frequent break down of technical infrastructure, cost of maintenance, poor electrical power supply in developing countries, cybercrime (e.g. computer systems hacking), digital rights management strangulating information dissemination, and forced placement of paraprofessional librarians on redundancy list. Fortune mentioned that the lack of basic technical skills to utilize technology powered services is a major threat that accompanied the emergence of technology in libraries. Vijayakumar and Vijayan opined that lack of funding, inadequate staff with ICT skills, high annual operational costs hinder the disadvantageous use of technology as well as its potentials in creating unemployment. Khan listed poor funding technological infrastructure, inadequate electrical power supply in developing and under-developed countries, high cost of bandwidth and the recent digital and intellectual property rights issues pose threat to the effective use of technology in libraries. There is also the issue of library patrons privacy where data is breached, identity is revealed or stolen with trending technology. However, McAndrew has suggested the use of a library virtual privacy network (VPN) to protect online users of library resources using an encrypted tunnel in the library user devices, although, this may come with paid charges. Okiy highlighted that training and re-tooling of library staff and inclusively, the government has a role to play in funding libraries to appropriate the full specifications that comes with globalization of libraries through technological empowerment. She complained of poor communication infrastructure, low technical skill, and lack of collaboration between libraries, government and non-governmental agencies has a blockade to the sustainable use of technology in libraries. In , it is submitted that globalization has led to decline in budgeting for research libraries in Australia, hence, technology and globalization is known to be caused some form of unemployment, and under funding for librarians and information professional, although some authors do not agree with this fact. It is clear from several authors that these challenges are uniform and universal and needs urgent attention.



The Mobile Technology and its application are not new in library services. Most of the libraries across the world were already using SMS services to their Library users to provide them notifications regarding the library. Now a days the mobile computing has transformed libraries by enabling the users stress free admittance to “information on the go” service. By the ubiquity and relative success that mobile users have with Google and other search engines, libraries need to be competitive in order to remain relevant. The role of mobile technologies and mobile library initiatives for information access in academic libraries cannot be underestimated. In this paper, different mobile initiatives like mobile library website, MOPAC’s, mobile SMS reference services, mobile library notifications, QR codes, augmented reality etc. are highlighted with examples of Universities that have already made inroads in mobile library services. Moreover, how these mobile library services would help to facilitate access to information in ubiquitous and time bound manner has also been discussed in detail. For libraries, especially academic libraries to stay relevant in the mobile era there is a need to implement mobile library technologies for the maximum access of their resources and for the satisfaction of their users and how they facilitate access to information are discussed to understand how libraries can leverage them for making their services fast and smart. In order for libraries to stay relevant, libraries must implement

mobile library technologies for the maximum access of their resources and promotion of their services.

Conclusion

Today, due to the effect of globalization, teaching curricula have been standardized, methods in practical courses optimized and unified and access to information available in other organizations made possible. The libraries now serve as a repository for information resources in parent institution and others. Although, as perceived by some authors and information professionals, the emergence of technology is currently in the process of making libraries and librarians obsolete by cutting down on the relevance of human resources in the management and distribution of library resources. The availability of e-books, repositories, archives and digitized information has spurred creativity in the management of libraries, library services are still been shaped by innovative technology. These former traditional bookstores with dusty card files have been rebranded by the technology powered globe. Since the introduction of technology into library, learning with library resources have had a touch of dynamism, 'psychologically and environmentally friendly' for example the availability of free e-books and databases. Libraries across the globe have increasingly demanded for computers and smart devices to offer customer friendly services to users which are mostly students. Today libraries offer wireless Internet services in their digital library (popular known as e-library) section.

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A STUDY ON EMPLOYEE STRESS LEVEL AND ITS IMPACT ON PRODUCTIVITY

Krishnamurthy.R

Assistant Professor, Dept of Commerce
Govt First Grade College, Holenarasipura, Hassan (D)

ABSTRACT

Stress is a universal element and persons from nearly every occupation have to face stress. Employers today are critically analyzing the stress management issues that contribute to lower job performance of employee originating from dissatisfaction & high turnover ultimately affecting organizational goals and objectives. There is an impact of job stress on employees' commitment. When higher level of stress exist with no managerial concern for solution consequently lowering the employee performance; staking organizational reputation and loss of skilled employees, these situations call for immediate concern from organization management for employing effective stress management practices to increase employee satisfaction and overall employee performance. It was recommended that remedial measures need to be taken by management to minimize the effects of job stress on permanent basis. For this purpose, management must conduct the research programs to build the managerial and technical skills of employees.

Keywords: workplace, occupational stress, productivity, Technical skills, anxiety

Introduction

Stress and anxiety rank among the most common workplace challenges. Some 83 percent of Americans experience work-related stress, according to Zippia. This is why it's essential for supervisors, managers and employees to identify stress and anxiety symptoms and implement strategies to ease pressures in the workplace.

Workplace stress can have substantial consequences – such as burnout, low morale and high absenteeism – impacting productivity as well as a business's financial performance.



The impact of stress on productivity

Whether it is related to family, health, work or school, everyone experiences stress at some time. It is physical and mental and is often caused by life events, such as a change in responsibilities, job loss or promotion, death of a loved one, or illness. Although stress can be beneficial, it can also be a disadvantage, especially when it comes to job productivity. Since stress can have a significant impact on your physical and mental well-being, it can ultimately affect your productivity. Zippia reports that over 50 percent of employees are disengaged at work as a result of stress. Here are some of the signs that stress is negatively impacting your productivity:

- **Lack of energy:** Although stress is known to give you a burst of adrenaline, following the initial boost, it will rapidly drain your energy, which ultimately leaves you emotionally and physically drained. The lack of physical and mental energy can prevent you from doing your best, which will have a significant impact on productivity.
- **Lack of focus:** Good production requires focus, but stress will take over your mind, making it extremely difficult to focus on the task at hand because you are more focused on what caused your stress.

- **Constant worry:** Have you ever been so consumed with worry about something that may happen? Stress has a way of taking up your time by making you continuously worry about something that may or may not happen; this is time lost that could have been spent on more productive tasks.
- **Reduced creativity:** Being stressed causes your mind to wander, preventing you from locking in on new ways of thinking. It basically limits your ability to come up with creative, innovative ideas.
- **Negative effects on personality:** Not only does stress affect your emotions and physical abilities, but it also affects your personality. For instance, you may snap at peers without realizing that you are doing it, or you may become angry and/or yell at others without knowing you're doing it. Many jobs require teamwork in some form, so when you are snapping, moody or yelling at peers, it affects your ability to be productive, plus it affects the productivity of peers.

How stress affects company productivity

One of the most common ways stress affects the overall production of a company is through absenteeism, with about 1 million Americans taking off each day across the country due to work stress, reports Zippia. Stress-related symptoms such as difficulty sleeping, high blood pressure and headaches take a toll, causing even those with good attendance to begin missing more and more work.

These are some other ways stress may affect your company's productivity:

- **Staff turnover:** Stress in a company may lead to restless employees who have the desire to find a less stressful job. This ultimately creates an increase in staff turnover, which forces your company to put more funding and time into hiring and training new employees.
- **Tardiness:** Almost every company has a few people who occasionally struggle with being on time, but when employees who are typically punctual begin to have an increase in tardiness, it may be an indication of stress. This may be due to the fact that stress and anxiety often interrupt sleep, which makes it more difficult to wake up in the morning.
- **Peer relationships:** Unfortunately, stress also prevents otherwise energetic conversationalists from interacting with their peers. This is often due to them isolating themselves and being deprived of the energy required to make small talk or polite conversations. The lack of peer relationships and communication may eventually impact the company's productivity.
- **Quality of work:** Stress can lead to fatigue, personality changes, withdrawal from others and a decrease in enthusiasm, all of which can significantly impact the productivity of your company. Research from North Carolina State University found that between 2021 and 2023, worker productivity in the U.S. fell 2 percent, a significant decrease compared to the last 70 years.

How to reduce stress

It's important to be informed as to how stress can impact you and your employees, but how do we change it? Here are some helpful ideas:

- **Get physical.** One benefit of exercise is the effect it has on stress. Not only does it pump your body full of feel-good endorphins, but it can also help you sleep better and aid in relaxation.
- **Take a breathing break.** A stressed body is in overdrive. Try taking five minutes to yourself and focusing on your breathing. This will help to slow your heart rate and lower blood pressure.

- **Try a creative outlet.** Focusing on an art project or a creative project is a great way to focus on a nonwork-related task that stimulates your brain. Adult coloring books are all the rage for this reason.
- **Make your workspace more comfortable.** It's important to set boundaries between work and home, but a healthy workspace doesn't need to be stark. Add a few cozy elements that feel like home, and consider investing in ergonomic office equipment. Your body and mind will thank you.
- **Focus on positives.** Stressed thoughts often focus on negatives. Each day, set time aside to focus on the good by writing down at least three things that went right or unexpectedly well. Keep your list in an easily accessible place.
- **Speak with a qualified professional.** The events that cause stress can't be changed, but the way you think about them can. A professional trained in cognitive behavioral therapy can help you rescript stress-causing thoughts as they happen.

There are various things you can do to reduce the amount of stress in your business, communication being the most beneficial. Encourage communication among teams as well as between management and employees. If a specific team member is displaying signs of stress, discuss and offer options as to how other team members and/or management may be able to help. Offer employees regular breaks, and encourage exercise and healthy eating.



Psychological well-being, which influenced by stressors in the workplace, has been identified as the biggest predictor of self-assessed employee productivity. The relationship between stress and productivity suggests that greater stress correlates with less employee productivity. However, few studies have examined productivity at a worksite in relation to stress.

Previous research focused on burnout, job satisfaction, or psychosocial factors and their association with productivity all highlight the importance of examining overall stress on productivity. Other studies focused on self-perceived stress and employer-evaluated job performance instead of self-assessed productivity. However, most studies examining this relationship have been occupation specific. Larger studies examining this relationship were performed in other countries.

The purpose of this study was twofold. First, the study sought to elucidate the relationship between stress and productivity in four worksites in Kansas. Second, the study sought to examine potential differences in stress and productivity by sex and race.



In the fast-paced world of today's corporate landscape, stress is an ever-present companion for employees. The demands of meeting deadlines, navigating office politics, and balancing work and personal life can take a toll on their mental and physical well-being. Stress isn't just an individual concern; it can significantly impact an organization's productivity, profitability, and overall success. In this article, we will delve into

the various ways stress affects employee productivity and offer strategies for mitigating these effects.

The Vicious Cycle of Stress and Productivity

Stress and productivity are intrinsically linked in a complex, often destructive cycle. As stress levels rise, employee productivity tends to decline. Here's how it works:

Reduced Focus and Concentration: When employees are under significant stress, their ability to concentrate on tasks diminishes. They become easily distracted, make more errors, and find it challenging to complete projects efficiently.

Decreased Motivation: High-stress levels lead to decreased motivation. Employees who are overwhelmed or anxious are less likely to be enthusiastic about their work, resulting in a lack of engagement and commitment to their tasks.

Absenteeism and Presenteeism: Chronic stress often leads to increased absenteeism (employees taking more sick days) and presenteeism (employees showing up for work but being unproductive). This affects the quality and quantity of work completed.

Poor Decision-Making: Stress impairs cognitive function, making it difficult for employees to make informed decisions. This can lead to costly mistakes and poor judgment calls, impacting the organization's bottom line.

Increased Health Problems: Prolonged exposure to stress can result in a range of health issues, such as anxiety, depression, and physical ailments. These health problems further diminish an employee's ability to perform at their best.

Burnout: Continual stress can lead to employee burnout, causing them to disengage from their work entirely. This is a critical concern for both the employee and the organization.

Strategies to Mitigate the Impact of Stress.

To address the detrimental effects of stress on employee productivity, organizations can implement the following strategies:

Promote a Culture of Well-Being: Encourage a workplace culture that prioritizes employee well-being. This includes promoting work-life balance, offering mental health resources, and acknowledging the importance of stress management.

Provide Stress Management Resources: Make stress management resources readily available to employees. This may include access to counseling services, stress reduction workshops, and mindfulness programs.

Flexible Work Arrangements: Offer flexible work arrangements, such as remote work options or flexible hours, to help employees better manage their work-life balance.

Clear Communication: Maintain open and transparent communication between employees and management. Encourage employees to voice their concerns and provide feedback on workplace stressors.

Training for Managers: Train managers and supervisors to recognize signs of stress in their teams and provide support and resources when needed. Effective leadership can significantly impact employee stress levels.

Encourage Physical Activity: Promote physical activity and exercise as a means to relieve stress. Many organizations offer gym facilities or fitness classes to help employees stay active and reduce stress.

Time Management Training: Provide time management and organization training to help employees better manage their workloads and deadlines.

Respect for Boundaries: Encourage respect for personal boundaries, such as not expecting employees to respond to work emails or calls during their personal time.

Stress is an undeniable part of the corporate world, but its impact on employee productivity can be effectively managed. By implementing a range of strategies to reduce stress and promote well-being, organizations can create a more productive, engaged, and motivated workforce. The positive impact on employee productivity is not only beneficial for the individual but also essential for the success and growth of the company. Recognizing and addressing stress in the workplace is an investment that pays dividends in terms of enhanced productivity, employee satisfaction, and overall organizational success.

In today's business environment, there exist a lot of competition among companies. The efficiency of employees and the productivity of employees are a significant and important component of the success of an any business. The extreme stress faced in the working environment greatly impedes this efficiency and this has drawn the attention of many employers. And knowing the factors leading to work stress and its impact on employee performance is vital for any organization to ensure its success and smooth functioning. The objective of this study was to investigate the impact of work stress on the performance of employees, using the purposeful and simple random approach to select the sample size of 200 participants. Using questionnaires and focus group discussion, data collection was conducted. The findings indicate that the participants suffer from undue stress that adversely affects their performance, as many of them feel that leadership exerts pressure on them to improve their performance. Keywords: Employee Stress, Managerial Role, Stress Management, Job Performance.



HR's Guide to the Effect of Job Stress on Employee Performance

Stress has always been present in the workplace. HR teams know that most employees experience job stress at some point in their careers. However, new challenges and recent changes to the way we work and live have increased employee stress. A new study from

Pathways found that nearly a third of employees are very concerned about their stress levels.

If not checked, stress has profound effects on our biology, leading to physical and mental health challenges. In addition, stress negatively impacts work productivity, company culture, and an organization's ability to meet its business goals. Job stress makes employees more prone to error, poor work performance, mental health issues, burnout, and conflict in the workplace. If job stress goes unaddressed, organizations pay the price in higher rates of turnover, disengagement, and absenteeism. However, when human resources understand how job stress affects employee performance, they can identify and support struggling team members. Here's a breakdown of how stress affects employees' performance and ways HR can help team members.

How Stress Impacts Employee Performance & Well-Being

Productivity depends on employees' time management skills and ability to focus on the task at hand. Unfortunately, when job stress comes into play, employees find it difficult to concentrate, meet deadlines, and utilize their creativity. More significantly, stress can trigger other mental health concerns that impact job productivity— including burnout, anxiety, depression, and conflict.

Stress Leads to Employee Burnout

This year, employees reported burnout as their number one concern. This concern points to underlying issues with stress management and productivity at work. Chronic stress, or burnout, means employees become less engaged with their work. When employees are "checked out" at work due to burnout, they can't maintain normal productivity levels.

Burnout also increases absenteeism, presenteeism, and at its worst— lends itself to more turnover. When stress turns into burnout, not only are employees less engaged and productive, they're also less satisfied with their jobs. One of the leading reasons employees

choose to quit their jobs is burnout from chronic stress. Burnout also puts employees at higher risk of developing clinical depression, profoundly impacting one's job and quality of life.

Anxiety, Depression, & Lost Employee Productivity From Stress

Work-related stress can be a vicious cycle. Stress often leads to more significant mental health concerns that impact team members' productivity levels. In addition, stress lends itself to increased rates of anxiety and depression, which can affect employees' job performance and personal lives. When employees experience anxiety and depression, they find it more difficult to function normally and require extra effort to be productive at work.

Employees know that their stress and anxiety affect their ability to be productive. In a study by the Anxiety and Depression Association of America, 56% of employees reported that their anxiety and stress impacted their work performance. Due to stress in the workplace, constant worry or concern about one's performance can be overwhelming and lead to less productive workdays.

Stress alone can make it difficult to focus and engage in daily work. However, the biggest threat to productivity isn't just stress. It's how stress manifests into more significant well-being issues that impact employees' performance. Knowing the effects of stress on productivity is critical to organizations committed to higher performing employees and retention.

Workplace Stress Means More Conflict, Less Collaboration

One employee's stress can impact how well the whole team collaborates: a phenomenon most HR departments know all too well. Collaboration becomes more challenging when employees are stressed— leading to ineffective communication that can cause workplace conflict.

Every member of an organization has an emotional threshold when it comes to stress. If an employee's stress levels are low, their capacity to navigate difficult conversations is greater. Conversely, when stress consumes an employee's emotional capacity, they have limited "emotional bandwidth" to dedicate to thoughtful communication.

Workplace conflict that results from stress and poor communication is not only time-consuming but also hinders job performance. Additionally, stressed employees are less likely to find ways to address and resolve existing conflicts with team members. Over time, this reduces productivity and makes it difficult for employees to build trust at work.

The impact on employee productivity and performance isn't the only price of job stress and conflict. Work environments with unresolved conflict are a breeding ground for turnover. SHRM found that 50% of voluntary work departures were due to unresolved conflict at work. Beyond employee performance, the conflict that arises from stress can ultimately significantly impact your retention rates.



How HR Can Help Employees Cope & Manage Stress

Your organization can take proactive steps to mitigate the impact of stress on employee performance by focusing on workplace well-being. As stress factors into other mental health concerns, a holistic approach to employee well-being is most effective.

Assess and Enhance Existing Benefits

Examine what benefits you have in place to support employees to address job stress. If you already have a wellness initiative, consider how you can expand your existing program to incorporate mental health. For example, if your organization focuses on improving physical activity levels, you can organize a walking campaign.

A walk outside to break up the workday is a great way to reduce job stress. Taking breaks from work is proven to reduce stress levels. Breaks are especially effective if spent

doing physical activity or practicing mindfulness. Employees can practice mindfulness independently, but they'll need to learn how to do so.

Organizing guided meditations or training on mindfulness techniques can help employees implement better stress management practices throughout their workday. In addition, creating a "mindfulness break" as part of organizational culture can go a long way. Mindfulness breaks are a stress reduction method and send a message to employees that leadership cares about their well-being.

Create a Psychologically Safe Workplace

When employees don't have support when they're stressed, they become less engaged with their work. Reduce stress by creating a work environment where employees feel comfortable speaking about their feelings without judgment or punishment. A psychologically safe workplace depends on empathetic leaders setting an example.

Encourage managers to approach their team and speak candidly about their well-being and the wellbeing of the group. For example, leadership can host a lunch-and-learn about stress at work and sharing their own experience. A more casual approach works too. For example, managers can have monthly check-ins with employees and lead the conversation about their well-being.

When leaders discuss how they're doing emotionally, it encourages employees to speak up when struggling. Talking honestly about stress is the first step in managing it effectively and getting support at work.

Implement a Holistic Employee Mental Health Program

Most existing employee benefits lack sufficient support when it comes to reducing stress and proactively managing mental health. Few employees utilize their employer's EAP, and they're already in crisis by the time they do. At that point, the effects of stress have likely already reduced productivity at the cost of your organization.

Consider implementing a mental health program that trains employees on how to manage their stress levels. A holistic mental health program provides the resources employees need to care for their mental health before they're struggling. Training sessions should educate employees on the effects of stress and how to prevent and cope with stress. Holistic programs also include access to resources and tools to help raise awareness and well-being. If your organization wants to reduce employee stress, our Pathways at Work program offers customized employee mental health training. Our behavioral health experts will work hand-in-hand with your HR team to develop workshops and resources for your team. Your employees might be stressed, but your HR team is in a great position to offer them support. Reach out today to schedule an initial consultation with one of our Behavioral Wellness Experts.

Conclusion

This study suggested there is a negative correlation between overall stress and productivity: higher stress scores were significantly associated with lower productivity scores. This negative association observed for all HWQ subscales, but was especially strong for work satisfaction. This study also suggested that males may have better supervisor relations compared to females, although no differences between sexes were observed by perceived levels of stress. There was no difference in productivity or stress by race. The results of this study suggested that employer efforts to decrease employee stress in the workplace might increase employee productivity.

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UTILIZATION OF VARIOUS FORMS OF ACTIVATED CARBON FOR REDUCING VOLATILE ORGANIC COMPOUNDS

M.Sasikala

*Research Scholar, Department of Textiles and Apparel Design,
Bharathiar University, Coimbatore, TamilNadu, India.*

Dr.K.Sangeetha

*Professor and Head, Department of Textiles and Apparel Design,
Bharathiar University, Coimbatore, TamilNadu, India*

Dr.S.Aruna Sampath

*Assistant Professor, Department of Textile & Leather Engineering,
School of Chemical Engineering, Jimma Institute of Technology, Jimma University, Ethiopia.*

ABSTRACT

Hazardous volatile organic compounds (VOCs) have been removed from gas streams using a variety of control techniques. Adsorption procedures are especially well-liked since they are thought to be more practical, efficient, and cost-effective than other techniques. The idea of activated carbon-based adsorbents for VOC management is presented in this research, along with their benefits and drawbacks for VOC gas adsorption. The kind of volatile organic compound (VOC) being employed, together with its chemical and structural features, determines the choice of adsorbent and process parameters. The review goes into great length about the use of AC adsorption systems. This paper provides an in-depth analysis of the various activated carbon charcoal types and their use in VOC adsorption techniques for various applications.

Keywords: *Volatile organic compounds, Adsorption, activated carbon and charcoal.*

Introduction

Concerns about the environment related to atmospheric volatile organic compounds (VOCs) have served as the impetus for both basic and practical studies in the field of environmental cleanup. Currently, adsorption, condensation, and incineration are the conventional techniques used to handle volatile organic compounds. Only moderate-to-high VOC concentrations make incineration and condensation economically viable. VOCs are only transferred to another medium via adsorption and absorption; they are not destroyed. The humid gas stream has the potential to clog the condenser and fill the adsorbent's adsorption site. However, because it is not economically practical to collect and reuse the compounds, none of these approaches are cost-effective for treating gas streams with low to moderate concentrations and high numbers of compounds. [i] VOCs include, but are not limited to, dichloromethane, trichloroethylene, and BTX (benzene, toluene, and xylene). VOC emissions have detrimental effects that are both primary and secondary. Prolonged exposure to volatile organic compounds can cause irritation of the eyes and throat, liver damage, and harm to the central nervous system. VOCs may potentially contribute to cancer. [ii] The secret to lowering the amount of volatile organic compounds released into the atmosphere is to remove them using activated carbon. These low-concentration volatile organic compounds can be removed economically and environmentally by adsorption onto activated carbon. According to Lomonaco et al., 2020; Tong et al., 2019, volatile organic compounds have drawn more attention lately due to their negative effects on human health, which include immune system damage, nausea, headaches, haze production, and photochemical smog. Their emissions, which are mostly caused by industrial operations including fuel combustion, paint and solvent manufacture, vehicle spraying, and petroleum refinement, are rising annually. [iii] VOCs are a broad

category of organic compounds that come out of some solids and liquids as gases. These volatile organic compounds have negative health impacts on people, and the kind and severity of these effects depend on the concentration levels and length of exposure. While volatile organic compounds are present in many industrial, commercial, and domestic items, their quantity in wells and groundwater has drawn attention recently. The origins, health concerns, transportation, and destination of these volatile organic compounds are reviewed in this research, along with methods for mitigating their effects using activated carbon. [iv]

Review of literature

Volatile organic compound

The term "volatile organic compound" (VOC) refers to a broad class of organic chemical compounds that are easily vaporized and released into the environment in a variety of goods. VOCs can travel great distances in the environment after being emitted because of their high volatility, mobility, and robust resistance to degradation (ATSDR, 2005). Aromatic hydrocarbons, such as benzene, toluene, ethyl benzene, and xylene, and halogenated hydrocarbons, such as chloro- and trichloroethylene, are the most often detected volatile organic compounds (VOCs).

Health impacts of VOC

Among VOCs, a subclass known as "cancerous volatile organic compounds" (cVOCs) is capable of causing cancer in humans. Drinking, swimming, bathing, eating, showering, and doing laundry are the main ways that people are exposed to VOC-contaminated water, both for non-cancer and cancer hazards (Sexton et al., 1995; Chowdhury and Champagne, 2009). It has been shown that the cancer risks associated with VOC-contaminated groundwater are hundreds of times more than the recommended levels of risk. VOCs can originate from either natural or man-made sources. Anaerobic marshy bog processes, emissions from trees and other flora, and spontaneous forest fires are some of the natural sources of volatile organic compounds (VOCs). Metal surface degreasing, textile cleaning, food extraction, fertilizer and pesticide application, septic system, chlorination, fumigation, traffic, hydrocarbon fuel evaporation, petroleum storage, distribution and storage, landfill, printing, building materials and pharmaceutical industries are among the anthropogenic activities that produce volatile organic compounds (VOCs). VOCs were identified as indoor air pollutants by Spengler and Chen (2000), who also provided a description of the methodology used to evaluate the sources of these emissions inside. Perfumes, tobacco smoke, chlorinated water, paint removers, carpets, adhesives, insulating foam, fresh clothes, plastic, paints and kerosene heaters are some examples of these sources. One of the main sources of volatile organic compounds (VOCs) released during the aerobic process's early stages is composting (Komilis et al., 2004). [v]

Classification of activated carbon

Activated carbon in powder form (PAC) Particle sizes for powdered activated carbons typically vary from 5 to 150 Å, while there are certain sizes that are outside of this range. PACs provide lower processing costs and operational flexibility and are commonly employed in liquid-phase adsorption applications. Carbon Activated Granules (GAC) Granular activated carbons can be used in liquid and gas phases, with typical particle sizes ranging from 0.2 mm to 5 mm. Because they provide clean handling and often outlast PACs, GACs are widely used. They also have increased strength (hardness) and regeneration and reuse capabilities. Carbon that has been extruded (EAC) is the cylindrical pellets known as extruded activated carbons come in sizes varying from 1 mm to 5 mm. Extrusion produces heavy-duty activated carbon, or EACs, which are typically, utilized in gas phase processes. [vi]

Activated carbon's mechanism

The US EPA lists activated carbon, which is the most extensively, used adsorption material, zeolite, and hyper cross-linked polymeric resins as the three principal adsorption

materials for regulating volatile organic compounds (VOCs). The material used in metal organic frameworks has a rich surface chemical functional group and a sizable specific surface area. It has the ability to absorb volatile organic compounds (VOCs). A portion of the adsorption materials are the same for adsorbing various target gases. The adsorption of VOCs is influenced by several variables. Adsorption of volatile organic compounds (VOCs) is influenced by the characteristics of the adsorption material, including the amount of surface functional groups, specific surface area, pore volume, and pore size distribution. A number of VOC characteristics, including molecular weight, molecular diameter, polarity, boiling point, and saturation vapor pressure, influence the adsorption process. Adsorption parameters like temperature and humidity have an impact on the adsorption process as well. [vii] Activated carbon is an inert carbon matrix that is micro-porous and has an extremely large internal surface area (ranging from 700 to 1500 m³/g). For adsorption, the interior surface is perfect. Materials containing amorphous carbon, such as wood, coal, peat, and coconut shell, are used to make activated carbon. It is created via a thermal process that involves the removal of volatile components in the presence of oxygen from the carbon-rich material (raw material). The adsorption qualities and capacity of activated carbon are determined by the precise pore structure that is created through certain treatments. The gas stream is directed through the activated carbon, where the components that need to be removed from adsorption bonds with the carbon until the carbon are saturated. After the saturation point is achieved, the activated carbon is replenished or regenerates. If the saturated activated carbon is changed, it is often sent back to the supplier, who either regenerates it or discards it as (chemical) waste. Typically, the saturation level is given as g/kg of activated carbon. The concentration in the air determines the saturation level. The concentration of the component in the gas and the pressure of the flue gases determine the partial pressure of a component. The component's partial pressure rises with increasing pressure and concentrations. Activated carbon has a linear isotherm. The capacity rises correspondingly with increasing partial pressures. This indicates that activated carbon has a greater adsorption capability at high input concentrations than at low input quantities at a given temperature. Nevertheless, the adsorption capacity will decrease at higher temperatures. For comparison, during successful adsorption, 20–25 g of solvent (expressed as carbon) can be absorbed for every 100 g of activated carbon. Capacity will decrease if the part is a poor absorber, the temperature rises, or the air becomes more humid. Adsorption often occurs in an activated carbon bed in practice. As the bed gets increasingly saturated, an adsorption zone forms in it and travels from the air intake to the outflow. At 100% input concentration, the air reaches the saturation zone and exits at the lowest vapor pressure feasible while in equilibrium with the activated carbon. Before reaching the adsorption zone, the bed is completely saturated, and after it, hardly any adsorption has occurred. The activated carbon filter becomes saturated as the adsorption zone approaches the end of the bed, necessitating either the regeneration or replacement of the bed with fresh activated carbon. [viii]

Conclusion

Due to the cheap cost and environmentally friendly nature of the waste-based raw materials, AC has a significant potential for usage as an adsorbent and to replace commercial chemicals. This study focuses on the many commercially available kinds of activated carbon (ACs) that are utilized by companies for VOC adsorption, as well as the manufacturing and activation process of ACs. After reviewing several uses for AC made of natural materials, it was found that the device meets the requirement of eliminating volatile organic compounds (VOCs) from both indoor and outdoor air. Therefore, there is a significant deal of pressure on researchers, politicians, public servants, and business leaders to figure out how to boost the yield, quality, and output of activated carbon derived from natural sources.

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Conflicts of interest

In regard to this study paper's publication, I officially declare that I have no conflicts of interest. To the best of my knowledge and belief, this document contains complete and accurate information. In the name of all contributing writers, I, the corresponding author, hereby proclaim this.

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