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Traditional Sports And Games In 21st Century:A Future Challenges

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Introduction

The history of sport can be traced back to the existence of human civilization itself. It is a key part of cultural identity, and a mechanism for the protection and promotion of cultural diversity. Thus, retaining knowledge of our traditional sporting practices is vital in terms of preservation and promotion of sport as an expression of Intangible Cultural Heritage. Worldwide there is a staggering cultural richness of indigenous, traditional, historical, and regional folk sports and games from different nations and ethnic minorities, many of which are fascinating not only for their differences, but also for the similarities of shared common features.“Traditional and popular culture is the totality of tradition-based creations of a cultural community, expressed by a group or individuals and recognised as reflecting the expectations of a community in so far as they reflect its cultural and social identity; its standards and values are transmitted orally, by imitation or by other means. Its forms are, among others, language, literature, music, dance, games, mythology, rituals, customs, handicrafts, architecture and other arts”“Games are the creation of a culture and the fruit of history. Literature and music, construction, ruins and food and drink are generally seen as community heritage; but we should not forget forms of enjoyment, of sharing the pleasure of acting together: we must not forget games! They, too, have emerged from the homeland: they reflect the deep social roots of different ways of behaving, of communicating with others and entering into contact with the environment. Linked to secular beliefs, performed according to traditional rites and ceremonies, inspired by practices from everyday life, physical games form part of cultural heritage, of cultural heritage generated by the body entering into play, generated by motor action. And this heritage is highly diverse and exuberant. This ethnic motor play represents culture in actions, a culture that is brought to life in each movement of the body. As such, games incarnate a place of memory, often ignored, but full of evocative symbolic Study of games can, therefore, offer interesting access to knowledge about societies”.

The Threat of Globalization

Many traditional sports and games are already lost and those that have survived are in danger of disappearing, owing to the various tendencies of globalisation, and convergence in the rich diversity of sports heritage toward a small set of culturally homogenous sports. This has occurred because of the globalisation of communication networks by an ever decreasing number of media organizations whose legitimate aim is to gain as large a leadership or viewership as possible via minimum expenditure. This is achieved by appealing to the mass market which favours mainstream sports. In this environment, soccer has become the dominant world spectator and participative sport. The Beautiful Game" however is culturally homogenous and its identity is arguably indistinct.

In contrast, traditional sports almost exclusively have an amateur ethos and their associations lack significant financial resources, albeit with a small number of notable exceptions. In conjunction with this amateur ethos, traditional sport associations are altruistic in their support of other traditional sports. This rich collective heritage is managed by sporting organisations and governing bodies with few salaried employees and relies on volunteers working tirelessly to retain and promote their sport as a social duty. In addition, traditional sports and their organisational structures are a central nurturing hub to retain, promote and pass on more widespread non-sporting aspects of cultural heritage (e.g. language, dance, music, storytelling).

National and Local Heroes

Interest and participation in a particular sport or sports club is significantly de- pendent upon a person's affinity to their sporting heroes. But national sporting heroes are not only a means of promoting participation; they themselves are part of the cultural heritage. They have unique patterns of movement and skill execution, handed down through successive generations that have taken years to master. Unlike other forms of cultural heritage, there is no tangible artefact to hold (e.g. a sculpture, a relic) but the grace and precision of their movements are evident. A particular flick of the wrist, a strike of the ball, or a side-step on the field, the synergy between players all constitute unique movement signatures that are as worthy as the brush stroke of a painter. There is a need to capture and preserve these movement signatures. However, as heroes have become more international, the sport itself loses its attachment to a local/national cultural heritage and thus there is a clear need to continue to promote the local heroes within \grass roots" communities.

Current Technology:

To increase engagement, participation and interest in national, regional and local sports, and their associated cultural heritage, connections need to be forged between the sport and their potential membership. This may be achieved by creating interactive media of local/regional/national heroes that gains a person's interest, especially children. Cultural heritage would be further enhanced if information on these heroes is retained to span generations. Furthermore, the technology should encompass the principle that children want to play like" and play with" their heroes, strengthening traditional sports' already strong focus on participative sport irrespective of gender. Whilst capture of national heroes and other aspects of traditional games is non-trivial, the technology exists high-cost optical motion capture is used to great to capture subtleties of human motion, not just in sport, but also in the movie industry.

Promotion and Development of Traditional Sports and Games.

Recognition by local, regional and state institutions
The political institutions active in the different towns, counties, regions and even states have still not shown the necessary interest to guarantee the protection and promotion of traditional sports and games.

Making it possible to organised co-ordinated intervention by different ministries or departments whose brief covers traditional sports and games. To this end, master plans and strategic plans should be drawn up to revive and promote such activities. By way of example, the departments or ministries of culture, tourism and sport, education, social welfare and the family, environment and youth should be able to promote co-ordinated action. In a second stage, such co-ordination should also include the involvement of local authorities, universities, local organisations, private enterprises, federations, cultural associations, sports clubs and even such bodies as parents' associations.

Models for the institutional organisation of traditional sports and games

It is essential to establish a balance between spontaneous involvement in these sports and games and organised practice aimed at guaranteeing their conservation. Nonetheless, an important limitation exists: players' age. These are often quite elderly people, generally unused to following the patterns laid down by stable models of organisation. Amongst the different possible organisational models, there are two in particular that involve traditional sports and games:

Festivities are the main occasion where traditional sports and games are played. Although there are still many places where these activities play an important role in festive events, they have fallen into disuse in many more. It is therefore necessary to promote the revival and restoration of traditional sports and games to the festive environment as a way of encouraging cultural dialogue between people of different generations, gender and place of origin. This is also an excellent way of promoting active tourism. Moreover, the festive context provides the best way of conserving and projecting features of local culture found alongside traditional games.

The **conversion** of the traditional game into a sport. Although this formula provides a stable organisational structure, it should not be understood to be the only path that can be taken. Unifying rules, standardising playing conditions (facilities, calendar, player categories, administration, etc) may cause a problem by globalising the activity and eliminating the signs of local identity that characterise such games. It is important to find a balance between the two formulas. Amongst the different options, it is proposed that cultural sections should be set up within traditional sports federations to promote coexistence between competition sport and other activities centred more on local traditions.

Attracting new players

Women and traditional games. The fact that women recently began to take up playing traditional sports and games invites us to think about how to ensure and increase their presence. Generally speaking, traditional games are very much integrating activities in which it is not necessary to establish categories or place restrictions on who can play. Nonetheless, these are very often practices that have been created through the thought processes of the hegemonic (male) gender and are more suited to the type of game that most interests men, that is to say, confrontation, strength or a mixture of strength and ability. This makes it necessary to take action, making conditions for playing these games more flexible and adapting them so that women, too, can find their own expression in such games, as well as introducing other forms in which female players can take part in larger numbers. We refer to dancing games, throwing games in which precision is required and strength is not a limiting factor (skittles and precision ball throwing games, for instance).

Traditional games and education

Teacher training. At present, educators working at different academic levels still receive insufficient training in traditional games, both in official and leisure education. Primary school, secondary school and baccalaureate teachers, monitors at games centres and leisure facilities and, particularly teachers specialising in physical education… all need rigorous, specific training to become familiar with traditional sports and games and to understand their educational value.

School-environmental projects.

The use of traditional games at schools should go beyond official classes of physical education and other subjects. Learning about the local area through games; visiting some natural space through games; taking part in local festivities; making and using the equipment needed to play a traditional game… these are just a few examples. Similarly, we should promote educational programmes involving local people, different members of the family, etc, to enable children to learn about games in their appropriate context. Here, too, it would be a good idea to link the school to initiatives organised by local facilities and organisations (museums, cultural associations, traditional sports federations, etc).

Exchanges.

In view of the integrating and “universal” nature of traditional games, we should encourage participation in educational projects and exchanges of experiences amongst schools. Such exchanges can take place amongst schools in the same region or country, or with those in other European regions, promoting intercultural dialogue through knowledge and experience of the different circumstances in which traditional games are found.

Promotion of studies.

The subject of traditional games continues to be one which receives little academic recognition, to which little importance is attached. Unlike other subjects of study, motor practices in general and traditional games in particular are anonymous expressions that require research to produce more information about them and the values they embody.

Applied research.

The second stage is to promote research into the results obtained from using traditional sports and games for education, competition, recreation and tourism. Here, too, it would be useful to draw up plans for interdisciplinary action, carrying out studies from the different epistemological “branches/regions” (physiology, psychology, sociology, anthropology, pedagogy, motor etc). In this, the involvement of the university is indispensable, as is the co-ordinated work of different ministries and departments forming part of regional, state and Indian administrations.

Establishment of museums.
As occurs with other areas of traditional culture, we need to establish permanent museums devoted specifically to traditional sports and games. These museums would also act as centres promoting educational and recreational activities based on knowledge of traditional leisure culture.

Use of the new Information and Communication Technologies (ICTs).
As far as possible, we should take advantage of all that today's "online society" has to offer. Web Sites launched by educational institutions, sporting organisations and associations offer a virtual forum enabling us to organise exchanges of information and experiences in the field. Similarly, we could share video and audio-visual products, in this way overcoming the problems people of a certain age can have to understand and express themselves in foreign languages. Probably the community spirit generated amongst groups from different European regions through the use of Internet and the new technologies would lead to the organisation of international exhibitions and meetings devoted to traditional sports and games, as already occurs in some Indian areas.

Publications.
Finally, we should mention the need to make the results of experiences and exchanges organised in the field of traditional sports and games more widely known. The most ambitious challenge facing us, once we have more information and research material available to us on the subject, may well be that of producing a Indian encyclopaedia of traditional sports and games. Subsequently, we should promote the publication of doctoral theses, studies, essays, etc, by editing books, monographs, articles in specialist journals and promotional works. On this point, it would be a good idea to create educational materials based on unified criteria for use in all European regions. Similarly, we should encourage the online publication of all materials relating to traditional sports and games on Internet and web sites.

References

1. F. Lenzerini, \Intangible cultural heritage: The living culture of peoples," European Journal of International Law, vol. 22, pp. 101{120, 2011.
2. M. L. Stefano, P. Davis, and G. Corsane, Eds., Safeguarding Intangible Cultural
Heritage: Touching the Intangible. Boydell & Brewer, 2012.
3. P. Kelly, C. _O Conaire, and N. E. O'Connor, \Human motion reconstruction using wearable accelerometers," in SCA 2010 { ACM SIGGRAPH Eurographics Symposium on Computer Animation, Madrid, Spain, July 2010.
4. D. S. Alexiadis, P. Kelly, P. Daras, N. E. O'Connor, T. Boubekeur, and M. B.
Moussa, \Evaluating a dancer's performance using Kinect-based skeleton tracking," in Proceedings of the ACM International Conference on Multimedia, Scottsdale,
Arizona, USA, November 2011, pp. 659{662.
5. J. Tautges, A. Zinke, B. Kr• uger, J. Baumann, A. Weber, T. Helten, M. M• uller, H.-P. Seidel, and B. Eberhardt, \Motion reconstruction using sparse accelerometer data," ACM Trans. on Graphics, vol. 30, pp. 18:1{18:12, 2011.
6. D. S. Alexiadis, D. Zarpalas, and P. Daras, \Real-time, full 3-D reconstruction of moving foreground objects from multiple consumer depth cameras," IEEE Trans- actions on Multimedia, vol. 15, pp. 339{358, 2013.
7. S. Essid, X. Lin, M. Gowing, G. Kordelas, A. Aksay, P. Kelly, T. Fillon, Q. Zhang, A. Dielmann, V. Kitanovski, R. Tournemenne, A. Masurelle, E. Izquierdo, N. E. O'Connor, P. Daras, and G. Richard, \A multi-modal dance corpus for research into interaction between humans in virtual environments," Journal on Multimodal User Interfaces, vol. 7, pp. 157{170, 2013.
8. M. Gowing, P. Kelly, N. E. O'Connor, C. Concolato, S. Essid, J. L. Feuvre,
R. Tournemenne, E. Izquierdo, V. Kitanovski, X. Lin, and Q. Zhang, \Enhanced visualisation of dance performance from automatically synchronised multimodal recordings," in Proceedings of the ACM International Conference on Multimedia, Scottsdale, Arizona, USA, November 2011, pp. 667{670.
9. V. Vlahakis, J. Karigiannis, M. Tsotros, M. Gounaris, L. Almeida, D. Stricker,
T. Gleue, I. T. Christou, R. Carlucci, and N. Ioannidis, \Archeoguide: _rst results of an augmented reality, mobile computing system in cultural heritage sites," in
Proceedings of the 2001 Conference on Virtual Reality, Archeology, and Cultural Heritage, Glyfada, Greece, November 2001, pp. 131{140.
10. D. S. Monaghan, J. O'Sullivan, B. Kelly, N. E. O'Connor, O. Kazmierczak, and
L. Comer, \Low-cost creation of a 3D interactive museum exhibition (Best Technical Demo)," in Proceedings of the ACM International Conference on Multimedia, Scottsdale, Arizona, USA, November 2011, pp. 823-824

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Role of Self Confidence Inventory on Performance of Female Athletes

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Introduction:
The objectives of this study is to examine 'a study on the effect of self-confidence on performance of female athletes' with a view to make the study more meaningful, certain specific aspect have also been studied and they are as under: To know the concrete frame-work of self-confidence on presentation of female athletes. To analyses the athlete Self-Confidence Inventory of female Athletes perception from sports athlete respondents. To findings and suggest for improve the performance of female Athletes in university in the light of the findings study.

Research Methodology:
The researchers collected information pertaining to self-confidential Status on Performance of Female Athletes from 100 sample female Athletes. in India by circulating questionnaire. Sample respondents were administered sportsman personality test and family climate scale and their responses were scored and tabulated for statistical analysis. Before administering the questionnaire, respondents had been given full instruction for completing the questionnaire. They were assured that their information will be kept confidential. The study is based on sample selected respondents only.

Results And Discussion:
The research data has been gathered from sample Female Athletes-respondents belonging to different universities in colleges. The filled-in questionnaires received from the Female Athletes-respondents were studied, analyzed and tabulated. Such tabulated data along-with interpretation has been presented in the subsequent paragraphs. It is a known fact that every game needs the specific skills which are essential for success in the competitions. The execution of the skill can be aesthetic and graceful if the individual possesses the requisite fitness.

Table 1 Mean, SD response of female group (N=100)

Sl.No.	Female Athletes	Mean	SD	't' value
1.	group(A)	22.20	2.64	1.687*
2.	group(B)	20.40	1.45	

*Table value required for significance at .05 levels
Above table describes the fact that there is significant difference between two groups A and groups B in terms of the 't' value was tested for significance at .05 level of self-confidence.

Conclusion:

Sports in the present world have become extremely competitive. It is not the mere participation or practice that brings out victory to an individual. All the coaches, trainers, physical education personnel and doctors are doing their best to improve the performance of the players of their country. The study analyses and through some light on parameters which is most based on self-confidence inventory prefunded by Basavanna which gives more potential to sports female athletes. The study conclude that sports athletes are compulsory implemented the self-confidence inventory of different parameters which more strength and stability in provided in each and every sports event and which are play a huge role in real life. Therefore, self-confidence inventory is very much important to all female athletes in sports life.

References:

Dubey LN. Sportsman Personality Test Jabalpur, AarohiManovigyan Kendra. 2000.

Einarson, Marne K.; Santiago, Anna M.1996, Background Characteristics as Predictors of Academic Self-Confidence and Academic Self-Efficacy among Graduate Science and Engineering Students: An Exploration of Gender and Ethnic Differences. ERIC Publication, 1996, Pp-59.

Elkin and Westely, (1955). Dimensions Of Personality, 3rd Ed., Methuen, New York.

Geeta, S. Pasteyand, Vijayalaxmi A. Aminbhavi. (2006). Impact of Emotional Maturity on Stress and Self Cofidence of Adolescents Karnatak University, Dharwad.

Hall, Evelyn, G. (1990). The effect of performer gender, performer skill level, and opponent gender on self-confidence in a competitive situation. Sex Roles: A Journal of Research, V23, journal- 2, pp.33-41.

Harter, S. (1982). The Perceiveci Competence Scaie for Children. ChifdDevelopment, 53, 87-97.

John D, 1972, Research Network on Socioeconomic Status and Health, Psychosocial Working Group, March 1972.

John, Research Network on Socioeconomic Status and Health, Psychosocial Working Group, March 1951.

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A Study of Endurance Ability among Wrestling and Foot Ball Players of Inter-Collegiate Players

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Introduction:

Aerobic means "with oxygen", and refers to the use of oxygen in the body's metabolic or energy – generating process. Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended periods of time. Aerobic exercise comprises innumerable forms. In general, Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise, without producing lactic acid in your muscles. During aerobic (with oxygen) work, the body is working at a level that the demands for oxygen and fuel can be meet by the body's intake. The only waste products formed are carbon-dioxide and water which are removed by sweating and breathing. Aerobic exercise is physical exercise of relatively low intensity and long duration, which depends primarily on the aerobic energy system. In general, it is performed at a moderate level of intensity over a relatively long period of time. For example, running a long distance at a moderate pace is an aerobic exercise, but sprinting is not. Playing singles tennis, with near continuous motion, is generally considered aerobic activity, while golf or two-person team tennis, with brief bursts of activity punctuated by more frequent breaks, may not be predominantly aerobic. Some sports are thus inherently "aerobic", while other aerobic exercises, such as fartlek training or aerobic dance classes, are designed specifically to improve aerobic capacity and fitness.

Methodology:

The sample for the present study is Male twenty Foot Ball and Male twenty wrestlers from various colleges of Ballari District. The data will be collected separately from Football and Wrestlers. The Subjects were made to Run 12 Min Run Cooper Test for enduranceThe Cooper test is a test of physical fitness. It was designed by Kenneth H. Cooper in 1968 for US military used in the original form; the point of the test is to run as far as possible within 12 minutes. To undertake this test, you will require:400-meter track, Stop Watch, Whistle Technical Official The subjects given 10 minutes for warm up. The Technical Official blows the whistle when the 12 minutes has elapsed and records the distance the athlete covered to the nearest 10 meters.

Results and Discussion:

The Table No.1 showing the Mean, S.D, Standard Error, t-ratio of Football Players and Wrestling in Cooper Test.

Results of 12 min Cooper Test	N	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2-tailed)
Wrestling Players	20	2020.00	119.61	39.13	1.59	48.00	0.10
Football Players	20	1850.00	127.61	28.79			

The Football Players Mean Performance is 2020 Meters and the wrestling Players Mean performance is1850 Meters. There is mean difference of between Football and wrestling Players. The Results of the study shows that Football Players are having the good endurance compare to Wrestling Players.

Conclusion & Recommendations:

This study shows that Football Players are having the good endurance compare to werstling players. It is concluded that Male Football Players are having good endurance compare to Male wrestling Players. Similiar studies can be conducted on female players and other team game players and individual game players those who are participated in inter university level etc.

References

Singh, Hardayal (1991) Sports Training General Theory and Methods. Netaji Subash National Institute of Sports
A Duxbury, xpAndrew (2006-02-28) Water fitness 2008-01-07
Agarwal, J.C. Educational Research ; An Introduction New Delhi : Agar Book Dept., 1975.
www.ijhpecss.org www.ifcss.in David C. Nieman & P.H.Facsm,fitness and sports Medicine: A Health Realatd Approach, 3rd Edition(California: Mayfield Publishing Company, 1986),

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Impact of Female psychological on the performance of sports players

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Abstract:
The competitive nature of sports, perhaps is the major reason for the athletes behaving aggressive and locus of control specially in contact sports where the instinctive tendencies of offense and defense behaviour.

Introduction:
The aimed at another human being with the goal of inflicting physical harm. Locus of control is an important aspect of the behavior. For the practicing school psychologist or teachers, this is apt to bring to mind a variety of ideas. It is structure of the actual process of performing, in other words, it is the physical, physiological, mechanical physic of the motor action or actions done during the competition. Motor action consists of movements, which are controlled and regulated by the central nervous system.

Methodology:
Keeping major objectives of the study in view, appropriate design is adopted. The study was conducted on 100 sports persons selected from various colleges of Ballari. The criterion of selection was participation in sports at least at inter collegiate level. The sample so selected was administrated the scales, viz aggression and locus of control. The differences between the sample sub groups on psychological factors and subsequently the sample was categorized based on the scores on psychological factors to access impact of independent factors on the sports performance of the respondents.

Findings:

Table – 1 Mean, SD and t-value sports performance in Aggression (N =100)

Aggression		locus of control	Agggression
Pre-test	Mean	20.8643	28.3507
	SD	14.8643	4.9826
	SE	□ 1.1265	□ 0.2051
	N	50	50
Post-test	Mean	21.6145	36.6548
	SD	1.7246	2.4810
	SE	□ 0.1090	□ 0.2201
	N	50	50
t-value		1.21*	1.24*

* Significant at 0.05 level

Therefore it can be said the aggression in sports has an instrumental value in enhancing the sports performance.The higher performance is found to be determined by the aggression that a sportsman possess and express. The aggression is therefore, an essential factor in any sports competition.
This clearly shows that that locus of control has something to do in the increment in the performance of the players.

Conclusion :

The study also assessed the influence of the independent variables like aggression, locus of control .It revealed the fact that all these independent variable have significant influence on the sports performance. The study categorically showed that all the factors have strong correlation with the sports performance in all the three events. On the basis of the findings of the present study, it can be concluded that the female fitness is good On the other hand.

Reference :

Baron R.A. (1977) Human Aggression, New York Plenum Press.
Behncke, Luke, Mental skills training for sports : A brief review, Athletic insight, 6.1 (2004) 8 May 2005.
Hutchinson, Bruce, (1977) Locus of control and participation in inter collegiate athletic, doctoral dissertation spring field college, 1972. cited in Finn, A.J. Strub, F.W. article Rec. Quart Vol. 4. No. 1 Mach 56-60.
Schedel, J. (1965), Psychological difference between athletes and Non participation in Athletics at three educational levels research quarterly 36, 52-67.

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Innovative Response On Big Five Personality Traits Among House Maker And labourer Women

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Abstract
Personality is a complete source of understanding human behaviors and others dimensions of life. The purpose of this study is to discover the conditional response on big five personality traits among middle-aged women in the North Bengal. According to the design of the study 225 house makers (HM) and 225 labourer women (LW) were randomly selected as the subjects, their aged between 35 to 44 years from three different communities in three districts of West Bengal, namely Cooch Behar, Jalpaiguri and Darjeeling. In respect of personality traits the data were collected by administering Big Five Inventory which measures five dimensions of personality. Mean and Standard deviation were calculated as descriptive statistics and to find out the inter group difference t-test was conducted. In five traits the three HM-groups were not significantly different from each other but in conscientiousness three HM-groups were significantly lower than their corresponding LW-groups. From the results it was concluded that in the North Bengal region of India the house wife had superior in few personality traits than the labourer women.Key words: Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness and West Bengal.

Introduction

Personality is the sum total of his/her "being" and includes physical, mental, social, emotional and intellectual aspects; ones personality reflects his perception, imagination, attitude, instincts, habits values, interests and sentiments about oneself and her self-worth. Intelligence, achievement, motivation and modes of adjustment - all these and much more constitute human personality. Personality embraces a person's moods, attitudes, motivation and style of thinking, perceiving, speaking and acting. (Singh, A. et al. 2009). On this way, it is the individual differences in characteristic patterns of thinking, feeling and behaving (APA, 2017).

With such a large potential impact on life, it's important to have a reliable way to conceptualize and measure personality. The most prevalent personality framework is the "Big Five," or the five-factor model of personality. It is clear that personality has a big impact on life. In fact, personality has been found to correlate strongly with life satisfaction (Boyee, Wood & Powdthavee, 2013).

Recently the organizational experts have come to the conclusion that five super-ordinate factors- the Big Five Model are the hup to understand about personality. The model has five sub parts which are: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness. Extraversion refers to the extent to which a person is sociable, talkative lively, active and excitable. An agreeable person would be caring help others, trust others and strive to be cooperative in groups. Consciousness refers to the extent to which a person is organized, careful, self- disciplined and responsible. A person who is high in consciousness would make an effort to be careful, organized and responsible. Neuroticism is the tendency to experience negative emotions such as anger, anxiety or depression. It is sometimes called emotional instability. And openness to experience refers to the extent to which a person is imaginative, independent and has a preference for variety.

Dispues and Friedman (2008) determined the association between the five- factor traits of personality and common mental and physical disorders. Conscientiousness (productivity) and neuroticism (adversely) were found to be meaningful associated with illness. Further, among adults with physical illnesses, associations were found between decreased likelihood of physical limitations and personality, especially consciousness. Andre, M. et al. (2010) investigated to secular trends in personality traits in adult female populations. In both age groups (38 years; n=318 and 50 years; n=593), secular comparisons in psychological profile subscales showed an increase in dominance, exhibition aggression and achievement. Vedel, Anna (2016) indicates that substantial personality group differences across academic majors exist.

The aim of this paper is to assess the conditional response on big five personality traits among middle-aged women in the North Bengal Region.

Methods

In the present study, 225 house maker and 225 labourer women within the range between 35-44 years were selected from three districts namely Cooch Behar, Jalpaiguri and Darjeeling of North Bengal, India. According to the design of the study there were three sub-groups namely General (GN), Scheduled Caste (SC) and Scheduled Tribe (ST). The all groups (GN, SC and ST) again sub- divided into two sub–groups i.e. house maker (HM) and labourer women (LW). The personality traits was assessed by administering Big Five Inventory which measures five dimensions of personality, extraversion agreeableness, consciousness, neuroticism and openness.

Central tendency and standard deviation were used as descriptive statistics for this study. Significance of the difference between two means was computed by using t-test and the level of significance was considered only 0.05 levels. All statistical calculations were done using standard statistical software.

Results And Discussion:

The Mean and S.D. of five personality traits were presented in Table-1 and result of t-test have presented in Table-2. The mean score of agreeableness was higher for SC-HM group than all other groups. Similarly, the GN-LW group has the highest mean score in comparison to all HM and LW groups in case of consciousness. The mean neuroticism scores of HM-sub groups were lower than other groups.

Table No.1: Mean and SD of five personality traits for all groups.

Parameters		GN-HM	SC-HM	ST-HM	GN-LW	SC-LW	ST-LW
Extraversion	Mean	27.66	28.16	26.92	26.92	26.93	25.82
	S.D.	±4.02	±3.83	±4.29	±4.29	±3.74	±4.59
Agreeableness	Mean	32.63	33.73	31.10	31.10	30.04	28.76
	S.D.	±3.91	±4.08	±4.24	±4.24	±3.75	±4.12
Consciousness	Mean	32.32	31.91	33.56	33.56	33.07	33.24
	S.D.	±4.90	±5.37	±4.83	±4.83	±3.63	±4.37
Neuroticism	Mean	18.48	18.52	20.23	20.23	19.43	20.70
	S.D.	±3.90	±4.29	±4.47	±4.47	±4.93	±4.75
Openness	Mean	33.53	32.89	30.37	30.37	32.29	32.35
	S.D.	±4.66	±4.03	±4.15	±5.51	±4.40	±4.34

In extraversion pair-wise t-test was conducted as a routed matter. Out of 3-pairs of HM-group and 3-pairs of LW-groups only one pair GN-LW Vs ST-LW was found significant. However, when HM-groups i.e. GN, SC and ST groups compared with corresponding LW-groups, out of 3-pairs two pairs SC-HM and ST-HM had higher score than LW-SC and LW-ST groups respectively. It means house wife i.e. sedentary females were more extrovert than labourer women groups.

For agreeableness pair-wise t-test, the three HM groups were matched against to each other and no pair was found significantly different. On the contrary, when three LW groups were compared among themselves, it was observed out of three pairs two were significant and three HM groups were matched against their respective caste but LW groups, all the three pairs were found significantly different. It means HM group's agreeableness was a higher level than LW groups.

For consciousness, pair-wise t-test was clearly shown that out of nine paired means none was the significantly difference. It means consciousness score of the groups were almost identical. The result of paired t-test, the difference between three pairs of HM groups was not significantly different. The difference between HM and LW groups, the neuroticism score of GN- HM and ST- HM were less than the GN- LW and ST- LW groups respectively. However, the SC- HM group was not different from SC- LW group.

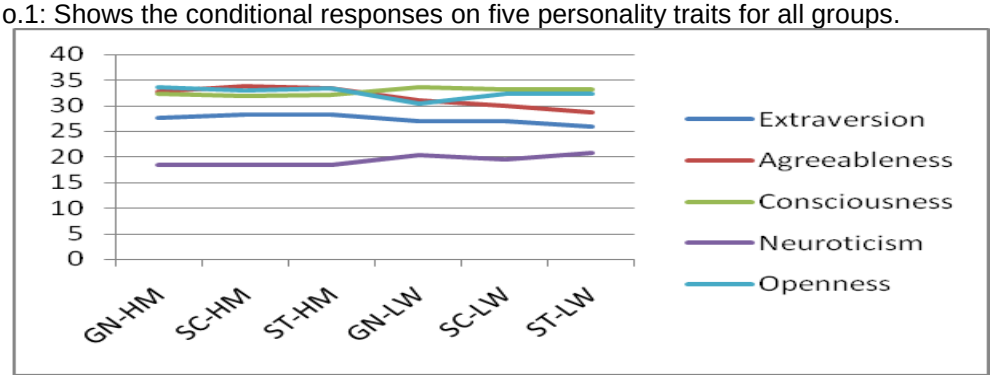
Table No.2: t-test: All the groups together for five personality traits

Parameters	*Statistics*	*GN-HW Vs. SC-HW*	*GN-HW Vs. ST-HW*	*SC-HW Vs. ST-HW*	*GN-HW Vs. GN-WW*	*SC-HW Vs. SC-WW*	*ST-HW Vs. ST-WW*	*GN-WW Vs. SC-WW*	*GN-WW Vs. ST-WW*	*SC-WW Vs. ST-WW*
Extraversion	t- stat	-0.87	-0.84	0.13	1.11	2.13	3.58	-0.02	1.87	-1.89
	P(T>=t) one tail	0.19	0.2	0.45	140E-01	0.02*	0.0003*	0.49	0.03	0.03
Agreeableness	t- stat	-0.07	-1.12	0.83	2.53	4.04	7.11	1.54	3.17	2.27
	P(T>=t) one tail	0.43	0.13	0.21	0.007*	6.53	3.04*	0.06	0.001*	0.01*
Consciousness	t- stat	0.33	0.03	0.3	-1.83E+00	-1.44	-1.41	0.69	0.42	0.30
	P(T>=t) one tail	0.37	0.49	0.38	4.00E-02	0.08	0.08	0.25	0.34	0.38
Neuroticism	t- stat	-0.06	-0.06	0.50	-2.55	-1.29	-2.81	1.06	-0.7	1.68
	P(T>=t) one tail	0.48	0.48	1.67	0.006*	0.1	0.002*	0.150	0.25	0.05
Openness	t- stat	1.01	0.3	0.59	3.55	0.89	1.44	-2.44	-2.37	0.08
	P(T>=t) one tail	0.16	0.38	0.28	0.0003*	0.19	0.08	0.009*	0.01*	0.47

Statistics:t-stat=1.98 is significant at 0.05 level *Significant at 0.05 level

The results of paired t-test (Table No.2) revealed that the difference between all HM-sub groups were statistically not significant and may be considered as the related groups. In this parameter, only GN-LW group was significantly higher than the GN- LW group. Others two HM- sub-groups i.e. SC and ST-HM groups were not significantly different from corresponding LW groups. In case of LW sub-groups, the GN- LW was found significantly lower with the SC and ST- LW groups. But the difference between SC and ST- LW was almost identical (Figure.No.1)

Figure No.1: Shows the conditional responses on five personality traits for all groups.



In the present study psychological health was assessed with the five dimensions of personality, extraversion, agreeableness, consciousness, neuroticism and openness. Extraversion predicts effective functioning and well – being across a wide variety of domains from cognitive performance and social endeavors to social economic status (Ozer and Benit – Martinez, 2006).

John and Srivastava (1999) found the mean correlation was 0.28 for agreeableness and conscientiousness, –0.28 for agreeableness and neuroticism. They also showed the reliability and validity of BFI for agreeableness was 0.79 and 0.92 respectively.

Bandyopadhyay and Dhar (2014) found that no significant difference (P<0.05) between individual and team game athlete in consciousness, extraversion and agreeableness in personality traits. Goldsmith et al. (1999) find that high levels of neuroticism (low-self- esteem) are associated with lower earnings using a pooled sample of working men and women. Measelle et al. (2005) concluded that neuroticism declined among women but did not change among men. Pakkala et al. (2010) assessed the mean score of the neuroticism was 13.1±2.3 of 38-51 years through EPI. Judge et al. (2002) estimated the true score correlations with job satisfaction and it was .02 for openness to experience. Srivastava, John, Gosling and Potter (2003) found a decrease in openness with age in both men and women. Hudek - Knezevic (2009) reported the participants who had serious illness achieved higher scores on openness to experience (36.71±5.48) than those without them (35.43±5.87), but this difference was not significant (t-1.91;P=0.057). Sung et al. (2011) showed the actual SD of openness was 3.77(.62) for the virtual class students of South eastern University, U.S.

Conclusion

On Extraversion :In extraversion scores of three HM-groups and three LW-groups were not significantly different from each other. However, SC-HM and ST-HM groups had significantly higher score than their matched working women groups.

On Agreeableness :There were no significant differences among three HM - groups in agreeable score. Three LW- groups were significantly different from each other. Three HM - groups were significantly different and scores of HM - groups were higher than their matched LW- groups.

On Consciousness:The consciousness score of three HM-groups were not significantly different from each other. In same way, three LW-groups were also not different. Three HM-groups were significantly lower than their corresponding LW-groups. However, LW-groups were higher score than their matched HM-groups.

On Neuroticism:In neuroticism scores of the three HM - groups and also among three LW- groups were not significant different. GN-HM group's score had significantly lower score than GN- LW and ST- HM group had significantly lower score than ST- LW group in neuroticism score.

On Openness:In openness, three HM - groups were not significantly different. Labourer GN- group was found significantly different from LW- SC and ST- groups respectively. General HM - group had higher score than GN- LW group.

Recommendations

Considering the various aspects the author recommended that the present study has been confined within the 35-44 years age group. Further study may be conducted taking subjects below 35 years and above 44 years and also the athlete of various team and individual games.

References

Andre, M. et al. (2010). Cohort differences in personality in middle- aged women during a 36-year period. Scandinavian Journal of Public Health; 36(5): 457- 464.

Boyce CJ, Wood AM & Powdthavee N (2013), Personality changes as much as 'Variable' economic factors and more strongly predicts changes to life satisfaction, Social Indicators Research, 111(1),pp.287

Dispues, D. and Friedman, H.S. (2008), Ethnic differences in Health behaviors among college students. Journal of Applied Social Psychology.

Goldsmith, A.H.; Veum, J.R. and Darity, W. (1999). The impact of psychological and human capital of wages. Economic Inquiry, 35: 815-829.

Hudek- Knezevic, J. and Kardum, I. (2009), Five- factor personality dimensions and three health related personality constructs as predictors of health, Croat Med J; 50(4):394-402.

John, O. P. and Srivastava, S. (1999). The Big Five Inventory Taxonomy: History, Measurement and Theoretical perspectives. In L.A. Pervin and O.P. John (Ed.). Handbook of personality: Theory and research, Vol.2: 102 -138 New York, Guilford press.

Judge, T.A. et al (2002), Five Factor Model of Personality and job satisfaction: A Meta-Analysis. Journal of Applied Psychology, 87 (3):530-541.

Mc Ardle, W.D. ; Katch, F.I. and Katch, V.L. (1996), Exercise physiology: Exercise, Nutrition and Human performance, Lea and Fibiger: Baltimore (4th Ed).

Pakkala, I. et al. (2010), Genetic contribution to the relationship between personality and depressive symptoms among older women, Psychological Medicine, 40:1357-1366.

Ozer, D.J. and Benit- Martinez, V. (2006), Personality and the prediction of consequential outcomes. Annual Review of Psychology; Vol-27: 401.

Singh, A. et al. (2009). Essentials of Physical Education Kalyani Publication, Ludhiana, New Delhi (3rd ed)

Srivastava, S. et al. (2003), Development of personality in early & middle adulthood: Set like pleaster or persistent change? Journal of personality and social psychology, 84:1041-1053.

Vedel, A. (2016), Personality and Individual differences, Science Direct, Vol.92 April 2016, Pages.1-10.

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A Study on Self Confidence among Kho Kho and Kabaddi Female Players of Koppal District

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Abstract:
Kho Kho and Kabaddi are the Indian Sports. The game was included for the first time in the Asian Games in Beijing in 1990 where seven teams took part. Kho kho is a sport played by teams of twelve players, of which nine enter the field, who try to avoid being touched by members of the opposing team. Modern Kabaddi is therefore a synthesis of the game played in various forms under different names. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by India. The game was introduced in the Indian National Games at Calcutta in 1938. In 1950 the All India Kabaddi Federation came into existence and framed the rules. The Purpose of the study is to find out the self confidence among Kho kho and Kabaddi Players of Koppal District.The sample for the present study consists of 25 Female Kho Kho Players and 25 Kabaddi Players of Koppal District. Dr.S.J.Quadri Self Confidence Inventory is used to assess the Self ConfidenceThe Results of the Study shows that Kabaddi Players are having more confidence than Kho Kho Players. It is concluded that Kho Kho Players are having more self-confidence than Kabaddi Players. Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self-confidence is the main psychological variable for key to success in sports and games.Key Words: Self confidence, Psychological Training, Kabaddi and Kho Kho Female players.

Introduction:

Kho kho is a sport played by teams of twelve players, of which nine enter the field, who try to avoid being touched by members of the opposing team. It is one of the two most popular traditional tag games of the India. the other being kabaddi's confidence in sports relies primarily on the athlete's ability to believe he can win and that can be successful in his efforts the socio-physiological concept of self-confidence relates to self-assurance in one's personal judgment, ability power, etc. Self-confidence in sports relies primarily on the athlete's ability to believe he can win and that he can be successful in his efforts. Kabaddi is a various sport that originated in India. Modern Kabaddi is therefore a synthesis of the game played in various forms under different names. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by India. The game was introduced in the Indian National Games at Calcutta in 1938. In 1950 the All India Kabaddi Federation came into existence and framed the rules. The game was included for the first time in the Asian Games in Beijing in 1990 where seven teams took part. Kabaddi was introduced to and popularized in Japan in 1979 by Sundar Ram of India, who toured Japan on behalf of Asian Amateur Kabaddi Federation for two months to introduce the game. In 1979.

Method:
The sample for the present study consists of 25 Kho Kho Female players and 25 Kabaddi players of JalnaDr.S.J.Quadri Self Confidence Inventory is used to assess the Self Confidence.This scale was constructed and standardize by Dr. Quadri Syed Javeed. This Questionnaire were given Kho Kho players and Kabaddi players to write separately in different groups.

Results and Discussion:
the Study shows that Kabbadi players are having more confidence than Kho Kho Players. Kabaddi Game can improve your self-confidence not only in game but in other aspects of your life as well. It's an extremely challenging Sport that tests your limitations and to overcome physical and mental obstacles compare to the Kabaddi players

Table I:**Self-confidence inventory means values of Kho Kho and Kabaddi Female players**

Variables	Group	Number of subjects	Mean	Standard deviation	Standard error
Self Confidence Inventory	Kho Kho Female players	25	20.80	0.66	0.10
	Kabbadi Femaler players	25	15.32	1.1	0.12

In Table No.1 the Mean of Kho Kho Players is 20.80 and Kabbadi Players 15.32 there is a difference between the Kho Kho and Kabbadi Players. Kabaddi Players are having more confidence than the Kho Kho Players

Conclusion:
It is concluded that Kabaddi Players are having more self-confidence than Kho Kho players Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self confidence is the main psychological variable for key to success in sports and games. Recommendations Similar Studies can be conducted on Women sports persons and other sports and games.

References:
http://www.ifcss.in/JournalNo.15/Asian_Journal-15.pdf
http://www.ifcss.in
http://www.ijhpecss.org/onlinejournal.html
Wikipedia, Kabbadi and Kho Kho.

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Contribution to rely on Fonctionel-Morphology's characteristics to determine the feature players volleyball.(Analytic Approch).

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Abstract:
The main objective of this study is to try to determine the feature players of volleyball using anthropometric measurements and their relationship to determine positions of some of the clubs are active in the first national section and the second , a case study (05) teams senior volleyball class, which formed the research sample of (30) player taking part in the first national section and the second , and the sample was selected randomly and the researcher used the descriptive and analytical approach .And the completion of our research we have distributed questionnaires , to see the value and importance of anthropometric measurements when these coaches , as we used anthropometric measurements of the players in the normal state and during the competition, and so for comparison between the two cases .Key words : Feature player , Morphology , Antropometric , Players centers , Volleyball.

Introduction :
It has become an important to know the physical specifications physical (anthropometric) as the basis for the fundamental pillars that must be provided to access the individual athlete to the highest possible level, and on the other hand, the structural composition of the body plays a big role and a key to athletic performance, and begin importance of anthropometric measurements in that they are often used as a basis the success or failure of the specified activity, and this is confirmed by both the chlorine and other 1997 studies, Bouchard and others (1993bouchard & étal), (Nictycock, 1989), where the length and limit it in the specification of the performance of the skill affects, and means that differences in bone lengths will affect the performance skills of individuals, either positive or negative.
And proven through scientific research and studies that each event special physical requirements that distinguish them from other events , and these requirements are reflected on the physical measurements that must be provided to practitioners , (Lamache. S,2002, P 56) to provide these measurements can give an athlete an opportunity Staab not greater skills and arts event or game.According to (Corroyer. B, 2013. P 75) provides the physical measurements (anthropometric) can give the athlete's largest Astab skills and arts Hits chance. He says ," a selection of human elements that have the components of success , and if the human and material potential of the components of success in this game , and if the material and human resources available , it will not work if you have not been through the human elements fit with the game requirements, and is promising it will be a waste of time and effort.
Since there is a difference between the players in terms of their measurements anthropometric , so the researcher saw the importance of a relationship that features players of volleyball using anthropometric measurements and determine station play on the pitch ?
* Are there differences in features between the players and determine the positions on the pitch ?
* Is there a correlation between the features of the players using anthropometric measurements and the identification centers in the stadium ?

The research hypotheses:
Main hypothesis:
There are weaknesses in the physical preparation leading to the development of non-physical attributes or weakness in growth, leading to difficulty in determining the pitch centers.there is a difference in the features of the players, especially when followed in the use of anthropometric measurements and therefore easier on the coach or who is in the selection centers to determine the necessary and appropriate for each player.

There are an integrated feature of the relationship between the players and the use of measurements to determine the positions on the pitch.

Research objectives :-

Know the real role played by identifying morphological characteristics in improving the selection and activation play centers in volleyball.Raising measure Algerian players to what is required in the global arena of competitive sport.Determining the typical specifications that must be met when the players to be able to achieve global levels , and to predict the possibility of continuing player in practice a high level of efficiency.

Research methodology :

In this study, we rely on the descriptive and analytical approach , which is consistent and the nature of the subject, which requires a fact-finding and information collected Portal known as the " N, Mohammad Omar , 1986" .

Descriptive approach that " portray the current situation and determine the relations that exist between phenomena and trends, as it is not just a description of what is so apparent that it includes a lot of investigation and knowledge of young people and causes.Means adopted to gather information:In order to deny or prove the hypotheses offered to problematic, so we require to choose the most effective way, and through the study and scrutiny, and this is by using the following tools:

- Analysis Albeblograve: The primary objective was to clarify visions and theoretical concepts inadvertently note as much as possible in all aspects of the research and scientific theory, whether or applied scientific.A last pianih way: Before embarking on research we have conducted a preliminary survey threw to know the status of morphologic side with the Algerian volleyball coaches, and his method questionnaire directed towards particular niche factor Almorvoozivi determine positions Portal operations may researcher used a closed questionnaire, Open, where "be set of questions which closed require the respondent to choose the appropriate answer, and another set of open questions, and the respondent are free to answer "where he formulated 10 questions.

Test measurement method: include special devices points and measuring points Alontherubomtra and as well as the various accounts.Statistical treatment: A give and to identify and calculate statistical measurements, where we can see the preliminary and approximate conclusions.

In our way we can do the analytical side, among them duplicates account. Percentages: Use percentages to analyze the results Act in all measurements obtained from physical measurements that have been used, and this after collecting occurrences of each of them, a way of calculating the percentage "way triple play".

* Analytical treatment: we use this test to measure the significance of differences in the physical measurements of the players in the normal state and during the match and is "Ta" Stodint, standard deviation, the arithmetic average.

Results and analyzed and discussed:

Table No. 01 :It represents frequencies and percentages own measurements of the player prepared in the normal state and during competitions.

	In normal case	During the COMPETITION
The total length of the body	+1.82	+2.38
Nbre	16	16
Participation	98%	78%
The total length of the trunk and upper limbs	+1.52	+1.63
Age	19.17±0.89	19.17±0.89
Length of the upper limbs	0.67±0.70	0.94±1.63
the average	*	***
Participation	13.36±1.19	14.29±1.26

Analysis: Note through a table (01) for measurements in the normal state for the body as a whole is that the proportion of 21% of the total measurement of the body , while its measurements to a ratio of 98% the total length of the body upgrading , while the upper limbs are the length of the trunk is by 78 %.

As for the table (1-1), we note the following: that the Ta calculated and we found a $ 2.02 less than a $ 2.06 Ta scheduled, at 20 degrees of freedom, and significance level of 0.05, (Corroyer. B, 2013. P 85) thus showing us that there is a difference between these two measurements D (in the normal state and during the interviews) .

Table No. 02 :Represents frequencies and percentages, and the values of k 2 phrases first axis (first partial hypothesis) .

	Before the COMPETITION	After the COMPETITION
Morphological requirements	Yes:89% No: 11%	Yes:96% No: 04%
Nbre	16	16
Participation	100%	100%
Physical specifications and footwork	More than 83%	More than 97%
Age	19.17±0.89	19.17±0.89
Role of Length of the upper limbs (Rate)	0.67±0.70	0.94±1.63
the average	*	***
Participation	15.16±1.12	16.09±1.21

Analysis: It is through the gateway (01): note that most of the coaches care about measurements Alontherbomitrih 100%, and as well as the value of (Ca 2) calculated (24) is greater than the value of (Ca 2) Scheduled (5.99), and thus the presence of a statistically significant supports previous answer, which confirms that they care about measurements and they do all the sport season (Andre dowart. P, 1990, P63).

The ferry No. (02): note that most coaches believe that the most influential requirements in the pursuit of sporting excellence is the morphological requirements increased by 96%, and as well as the value of (Ca 2) Calculated (32.5) is greater than the value of (Ca 2) scheduled (18:31), and thus The presence of a statistically significant supports previous answer.

Table No. 03 : Represents frequencies and percentages, and the values of k 2 phrases second axis (second partial hypothesis) .

	Before the COMPETITION	After the COMPETITION
Physical side	Yes:79% No: 21%	Yes:88% No: 12%
Nbre	16	16
Participation	100%	100%
Besides the body move	More than 93%	More than 95%
Age	19.17±0.89	19.17±0.89
The role of the harmony of the upper and lower counterparty (Rate)	0.88±0.50	0.97±1.01
the average	*	***
Participation	17.16±089	19.08±1.45

Analysis:

Through the gateway (03) : note that most coaches when doing the test both grounded in the physical side and then by 79%, and as well as the value of (Ca 2) Calculated (24.5) is greater than the value of (Ca 2) scheduled (15:51) , and thus there is an indication statistical support the previous answer (Andre dowart. P, 1990, P73).

The ferry (04) : note that the coaches directing players to specialize in positions as potential physical and so by (95%) , and as well as the value of (Ca 2) calculated (14) is greater than the value of (Ca 2) Scheduled (5.99) , and thus the existence of statistically significant supports previous answer.

Conclusion:

In recent methodological solutions that the team can reach to safety and make it achieve creditable results and access levels insignificant and these solutions represented in pursuing the way calendar features players during the installation process using anthropometric measurements because of their scientific and standardized results, without giving importance physical means and possibilities, and even financial compensation, but rather must look to the future of the players and as well as the future of the team's first goal must be achieved no matter what the obstacles and difficulties faced by, any Atsvo spirits high to help them cope with these obstacles and overcome them, and trying to achieve the goal no matter what varied causes and factors that stand against them. And as well as looking at the future of volleyball in Algeria compared to other countries.

The bottom line Vtaatmhor about the importance of assigning the work of trainers to the scientific basis whatever the type of activity they are doing, so that there will be follow-up and technical control of this business working on tuned and corrected, was also able to predict the results of the players and team alike, and as well as giving the importance of scientific side, which is a pillar of the strong for all aspects, without exception, even characterized by their transparency and clarity, and to achieve accurate results without doubts and surprises and the lifting of scientific employment measurements anthropometric in our country level in order to reach a global level and the advancement of the sport of volleyball and activate Sports other.

Sources and References :

Andre dowart. P (1990): jacques bourneuf :ptit laroussede la médecine.libraire larouse,paris,France.
Bouchard. c (1993) : D'express jp. Tremblay a, exercise and obesity research,1.
Corroyer. B (2013) : Volleyball : Fondamentaux Techniques pour tous. Ed : @mphora, Barcelone.
Dictionnaire encarta, dicos 2010.
Garien. D (1992) : Dictionnaire des thémes technique de médecine ,edition ,vigot, Paris.
kolar. J-C and Salter. E-M (1997): Craniocial anthropometrey,practical measurement of the head and facefor clinical , surgical and researcl use. Charles c thomas , springfield.
Lamache. P (2002): Volleyball : Méthode d'entrainement. Ed : Chiron, France.

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A Study On Social Stress Between Resident And Non Resident Students Of Kashmir

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Abstract :
The aim of this study was to investigate social stress between Resident and Non Resident Students of Kashmir. For the purpose of this study 50 male students with mean age of 23.24±1.65 were selected as subjects. The selected colleges were D.C Baramulla and D.C Handwara for resident students and D.C.P.E Amravati and Sarhad College Pune for non resident students of Kashmir respectively. The resident students were those who are born in Kashmir and pursuing their graduation from college of Kashmir state. Those students were considered as non resident students who are born in Kashmir but pursuing their college education from away from the Kashmir state. 25 students were selected as subjects from each college. The depended variable for this study was social stress, which was measured by questionnaire constructed by Dr. Hari S. Chandran stress inventory for social stress. Analysis of variance was used as statistical tool for measuring the difference between resident and non resident students of Kashmir on social stress. The results showed that there were significant difference between resident and non resident students of Kashmir I.e. non resident college students were less stressful in comparison of resident college students of Kashmir. **KEY WORDS:** social stress

Introduction:
Social stress is stress that stems from one's relationships with others and from the social environment in general. A person experiences stress when he or she does not have the ability or resources to cope when confronted with an external stimulus (stressor), or when they fear they do not have the ability or resources. An event which exceeds the ability to cope does not necessarily have to occur in order for one to experience stress, as the threat of such an event occurring can be sufficient. This can lead to emotional, behavioral and physiological changes that can put one under greater risk for developing mental disorder and physical illness.
Humans are social beings by nature, as they typically have a fundamental need and desire to maintain positive social relationships. Thus, they usually find maintaining positive social ties to be beneficial. In particular, social relationships can offer nurturance, foster feelings of social inclusion, and even lead to reproductive success. As a result, anything that disrupts or threatens to disrupt their relationships with others can result in social stress. This can include low social status in society or in particular groups, giving a speech, interviewing with potential employers, caring for a child or spouse with a chronic illness, meeting new people at a party, the threat of or actual death of a loved one, divorce, and discrimination. These social stressors convey that social stress can arise from one's micro-environment (e.g., family ties) and macro-environment (e.g., hierarchical societal structure). Given the social nature of humans, it is not surprising that social stress is typically the most frequent type of stressor that people experience in their daily lives and affects people more intensely than other types of stressors.

Methodology:
The objective of the study was to analyze social stress between resident and non resident students of Kashmir. In this study, The age range was 19 to 24 years for the selection of subjects.

Total 100 students were selected from of the resident and non resident colleges from Kashmir. Further, the subjects were divided into two groups consists of 50 from resident colleges (Baramulla and Handwara) and 50 from non resident colleges (D.C.P.E Amravati and Sarhad College Pune) respectively the researcher made survey of social stress of resident and non resident students of Kashmir by questionnaires. In this study the researcher is to find the place of sample for the data collection after that he showed the letter of the college requesting for the permission for the related data collection. then he distributed the questionnaires to the students of the college. Students filled up the questionnaire and returned to the researcher. After the collection of data for research work the researcher has analysed the data and interpreted there result in this study.

This scale was developed by Dr. Hari S. Chandran (1980). This scale was considered as an appropriate questionnaire for the assessment of stress of students. The total numbers of items in this scale is 54.This stress inventory measures the dimension of students social stress that is social, cultural, educational and regarding personal. For assessment of these dimensions of students social stress total 54 questions are to be considered.

Results and Findings:

The obtained responses from 100 subjects of resident and non resident areas on paper pencil test were systematically analysed as per the predefined objectives of the study. The following statistical analyses were used:

To find out the distribution of the gathered score on selected variable descriptive statistical was employed included mean, standard deviation, minimum and maximum so on. The descriptive statistical table was constructed for resident and non resident college students on the variable i.e. social stress.

To find out the statistical significance difference on selected variable i.e. social stress among the students of resident and non resident areas, analysis of variance [ANOVA (F-test)] was employed.

To compare the multiple mean comparisons (Post Hoc) was used where the statistical significance difference was found on selected college students of resident and non resident areas on the variable i.e. social stress.

Table-1:DESCRIPTIVE STATISTICAL ON THE STRESS OF RESIDENT AND NON RESIDENT COLLEGE

				95% Confidence Interval for Mean			
		Mean	Std. Deviation	Lower Bound	Upper Bound	Minimum	Maximum
Resident	50	159.20	15.96	154.66	163.73	122.00	194.00
Non Resident	50	141.04	14.56	136.90	145.17	106.00	175.00
Total	100	150.12	17.73	146.60	153.63	106.00	194.00

The table-4 of descriptive statistical on the stress of resident and non resident college's students of Kashmir shows.

The response of 50 college students of residential of Kashmir on stress, the mean value was 159.20±15.96. Whereas, the minimum value was 122.00 and maximum value was 194.00.

The response of 50 college students of non residential of Kashmir on stress, the mean value was 141.04±14.56. Whereas, the minimum value was 106.00 and maximum value was 175.00.

Analysis of variance was conducted on the resident and non resident college's students of Kashmir to find out the significant difference combinable presented in table-5.

Table-2:ANALYSIS OF VARIANCE IN BETWEEN THE ALL THE RESIDENT AND NON RESIDENT COLLEGE ON STRESS

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9646.560	3	3215.520	14.371	0.000
Within Groups	21480.000	96	223.750		
Total	31126.560	99			

Table- 5 of analysis of variance in between the resident and non resident college's students of Kashmir on stress describes that.Sum of squares between the groups was 9646.560 at the degree of freedom of 3 the mean square between the groups was 3215.520.

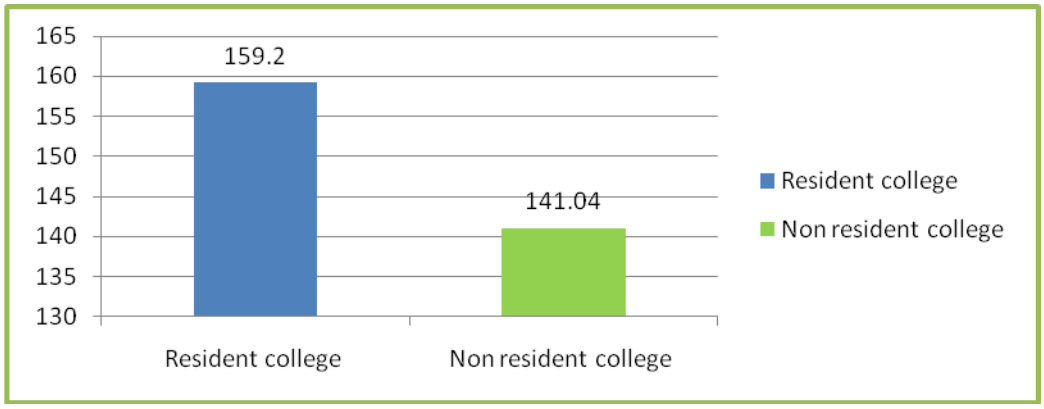
Sum of squares within the group was 214480.0 at the degree of freedom of 96 and the mean squares within group were 223.75.

The calculated f value was 14.371 with in higher than the P<0.05 at significant at 0.000 level (table-5)
As, the calculated f value was found to be highly significant post hoc test was used to find out the significant difference in between the colleges of resident and non resident students of Kashmir.

Table-3: POST HOC TEST ON VARIABLE STRESS OF RESIDENT AND NON RESIDENT COLLEGE STUDENTS OF KASHMIR

Resident college	Non resident college	Mean difference	Critical difference
159.20	141.04	18.16*	**5.98**

Post hoc table-6 illustrates the difference in between the college of resident and non resident students of Kashmir.
The mean difference between the resident colleges and non resident college's students of Kashmir was 18.16 which was significant as the obtained mean difference value was higher than critical difference value 5.98.
The non resident students of Kashmir were less stressful in comparison to resident student of Kashmir.
The graphical representation of mean difference between college of resident and non resident students of Kashmir has been presented in figure-1



Mean difference between the different college of resident and non resident of Kashmir

Conclusion Of The Study:

The results of the study collected from the selected subjects from two differs places resident and non resident college student of Kashmir reflects there was diverged views found on the variables social stress the obtained responses showed that non residential students were less socially stress in comparison to those students who are resident in Kashmir. In nut shell residential student of Kashmir were found to be highly socially stress than non residential students of Kashmir. In previous years Kashmir was knew for its beauty and a peaceful place to live. But the present situation of Kashmir region has been totally changed, this valley is under highly tense situation facing numbers of terrorist movement. There is Day to day struggle for living in Kashmir making local people extremely anxious and worried now day's people don't trust each other easily, very difficult to earn live hood and many more reasons. Therefore, people are under the stress full situation and extremely complicated to serve in Kashmir.

References:

Dr. Hari S.Chandran, M.Phil (Psy), Ph.d, PGDPC is working as Cons. Psychologist, *Department of Deaddiction & Mental Health, St.Gregorios Mission Hospital, Parumala. Kerala, India*, Article Source: http://www.ezinearticles.com.

Slavich, G.M., O'Donovan, A., Epel, E.S., & Kemeny, M.E. "Black sheep get the blues", A Psychobiological model of social rejection and *depression.Neuroscience and Biobehavioral Reviews*,35, (2010). pp.39-45

Almeida, D.M, "Resilience and vulnerability to daily stressors accessed via diary methods". *Current Directions in Psychological Science,*14, (2005),p,n 64-68

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Comparative study on Morphological Variables of Mangalore University and Mysore University Kabaddi Players

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Abstract
The study was taken by researcher to measure the morphological variables like skinfold measurement: biceps skin fold, triceps skin fold, subscapular skin fold, super iliac skin fold, and height, weight and body mass index of the Mangalore University and Mysore university kabaddi players for research.Researcherselected total 30 male kabaddi players from Mangalore university and 30 male kabaddi players from Mysore university students were administratedlike biceps skin fold, triceps skin fold, subscapular skin fold, super iliac skin fold, height, weight and body mass index andmean, standard deviation of male kabaddi players. And also t-test was applied to determine the significance of difference between paired means. The level of significance chosen was at 0.26Keywords: Skin fold measurement, biceps skin fold, triceps skin fold, subscapular skin fold, super iliac skin fold, height, weight and body mass index.

Introduction

Since the modern man depends mostly upon the modern outfits for his daily routine involving mental powers to live an easy going life. There has been a fall and deterioration in his physical health capacities. Modem man need not work like his forefathers for his daily life. So he has to become less vigorous and lethargic.If a country desires to excel in the field of games and sports, the only short cut is to make the people fitness conscious and encourage them to regularly and vigorously participate in physical fitness programs in order to raise their fitness status. There is a need to broad base physical education and sports. This can be very effectively done by in evolving the masses in physical fitness programs. Every individual should develop his strength and stamina for a happy and effective living. in order to get proper strength and stamina one has to involve in physical activities.There is no age for exercise; however, the nature of exercise depends upon the age of person. In fact adaptations of programmed by an individual depends upon the purpose, availability of equipment and facilities, his choice, needs, and interest and availability of guidance.The job of physical educator as well as coach has become very complex because each of them have to be aware of several decisive components like motors skills, anthropometric measurements in total performing ability of the sports persons in different sports activities. They have to be constantly on the lookout for improved methods of coaching and training to bring out the best in sportsman at early age in life. Children express their world of fantasies and imagination through creative play. Great educational thinkers saw in it the most suitable avenue for child's education, but the implementation has not been to the desired extent. The handicapped may find wider opportunity to express their creative thinking through various adapted movements.

Purpose of the study

The purpose of the study is to compare Skin fold measurement like biceps skin fold, triceps skin fold, subscapular skin fold, super iliac skin fold, and height, weight and body mass index of Mangalore university kabaddi players and Mysore University.

Significance Of Study

It is hoped that the data generated and interpreted in the study will help the health related institutions; the information collected can be used for monitoring the students who are not regularly in involved in physical fitness activities. The author also assumes that this study will help the kabaddi coaches to select male kabaddi players according to their morphological background because of speed movements involved in kabaddi game.

Methodology

The sample for the present study was 60 male kabaddi players, 30 students from Mangalore University and 30 students from Mysore University.

Variables

Skin fold measurement, biceps skin fold, triceps skin fold, subscapular skin fold, super iliac skin fold, height, weight and body mass index.

Statistical Procedure for analysis's' test was applied to compare the mean scores of the two groups. Mean, standard deviation, correlation study involving the investigation of the possible relationship of Body Mass Index and skinfold variables between male kabaddi players of Mangalore university and male kabaddi players of Mysore university co-efficient of correlation 'r' was computed to find out the relationship of independent variable to dependent variable.

Result and discussion

Statistical weight value :-							
UNIVERSITY	mean	median	std. dev	coefficient of variance	std errors of mean	degree of freedom	t-test
Mangalore	80	78.5	13.5	23.14	3.78	29	1.01
Mysore	82	80.5	15.5	3.13			
Statistical Height value :-							
UNIVERSITY	mean	median	std. dev	coefficient of variance	std errors of mean	degree of freedom	t-test
Mangalore	117	169	5.66	3.20	0.26	29	1.10
Mysore	182	171	7.78	4.27			
Statistical BMI value :-							
UNIVERSITY	mean	median	std. dev	coefficient of variance	std errors of mean	degree of freedom	t-test
Mangalore	8.57	3	3.94	45.96	0.72	29	0.12
Mysore	4.29	0	3.03	70.71			
Statistical FAT value :-							
UNIVERSITY	mean	median	std. dev	coefficient of variance	std errors of mean	degree of freedom	t-test
Mangalore	4.29	3	0.91	21.21	0.71	29	0.52
Mysore	6.22	14	6.87	16.28			

There is significant difference found between the means ofthe malekabaddi players of Mangalore University and male kabaddi players of Mysore University. Here the statistical weight mean value of Mysore students is (82) which are greater than mean value of Mangalore students is (80).the standard deviation of Mysore students is higher than Mangalore students the t value obtained is 1.012 which is less than table value at the distribution for 29 degrees of freedom 1.045. Statistical Height value of mean value of Mysore students is (182) which are greater than mean value of Mangalore students is (177). The standard deviation of Mysore students is higher than Mangalore students the t value obtained is 0.126 which is less than table value at the distribution for 29 degrees of freedom 1.045. Statistical BMI mean value of Mangalore students is (8.57) which are greater than mean value of Mysore students is (4.29). The standard deviation of Mysore students is higher than Mangalore students the t value obtained is 0.12 which is less than table value at the distribution for 29 degrees of freedom 1.045. Statistical FAT mean value of Mysore students is (6.22) which are greater than mean value of Mangalore students is (4.29). The standard deviation of Mysore students is higher than Mangalore students the t value obtained is 0.52 which is less than table value at the distribution for 29 degrees of freedom 1.045.

Conclusion

In anthropometric, it is observed from the study that there are significant difference in selected measurements such as weight, height, skin fold and BMI. Based on these findings, followingconclusions were drawn; Mysorestudent's demands for taller stature in comparison with Mangalore students and BMI of Mangalore university students were perfect than the Mysore university students.

References:

Russel F. Wells, "The Relationship Of The Weight , Body Height Ratio And Length Of The Lower Limps Segments To The Vertical Jump,, Completed Research In Health Physical Education. Vol. (21962):64.

UMESH CAHNDRA SAHA, "Comparison of selected anthropometric, \ measurements and physical Fitness Variables of tribal and non-Tribal students of Tripura" (unpublished masters theses, Jiwaji University, Gwalior. 1972).

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Sports Policy & RTI

Dr. Qudratulla Khan

Introduction:

Sports have a history which is almost as old as that of human society. According to many people the objectives of sports are physical fitness and psychological development, over all this assessment is correct but more than these the prime objective of sports is improvement in human relations. They lay seeds from childhood for learning about how to move along with others around. Though saying that they promote collective spirit in an individual is a little exaggeration, nobody could deny that sports promote collective spirit at least to an extant like as any others collective human Endeavour. They create under standing about the fellow human beings and the surrounding environment. The aspect to be mentioned specifically is that sharing of joy and emotion together are the other main advantages in today's environment, people are playing sports with machines (Video games) more and more rather than with the fellow human beings.

National Policies:-

The National Sports Policy was formulated by the government of India for the first time in 1984 with the objective of raising the standard of Sports in the country. This Policy stated that the progress made in the implementation of the Policy would be reviewed every five years to determine the further course of action. As may be necessary, following such review. In spite of various encouraging measures, the implementation of the goals and objectives of the National sports policy, 1984 could not be substantially realized. Therefore, the Policy has been reformulated several times laying down the specific measures to be taken by the various agencies, which are involved in promoting sports in the country. In accordance with the provisions of the National sports policy 2001, the central Government pursues the objectives of Broad –basing of Sports and Achieving Excellence in Sports at The National And international levels in a combined effort with the State Government, the Olympic Association and the National Sports Federation. In view of the potential strength and competitive advantage of Sports in India, the Sports policy mandates the state to promote sports activities in the country and integrate sports and physical Education more effectively with the Education Curriculum. The Government of India and the sports Authority of India, in association with the Indian Olympic Association and the National Sports Federations, are expected to focus specific attention on the objective of achieving excellence at the National and international levels. The National Sports Policy aims to pursue inclusion of "Sports" in the Concurrent list of the constitution of India and introduction of appropriate legislation for guiding all matters involving national and inter- state jurisdiction. In specific terms, the objectives of National Sports policy includes Board basing of Sports, integration with education, development of infrastructure, excellence in Sports, Development of National Sports Federations, Scientific back up to sports persons, ensure access to high quality of sports equipments, training and development of Coaches, Sports scientists, Judges, Referees and Umpires, incentives to Sports persons, integrated development of the sports and Tourism sectors and Resource mobilization for sports.

The Comprehensive Sports policy aims at securing this objective.

In India, the integration of physical education and sports with formal education was emphasized in the First Five Year Plan itself. The Lakshmibai National Institute of Physical Education (LNIPE) at Gwalior and the National Institute of Sports (NIS) at Patiala were established in the Second Five Year Plan. The National Coaching Scheme and the Rural Sports Programme were started in the Third Five Year Plan and expanded during the Fourth and Fifth Five Year Plans. Talent spotting and nurturing was emphasized in the sixth Five Year Plan. The Seventh Five Year Plan focused on the creation of sports infrastructure. The development of Rural Sports through a Special Area Games Approach was the thrust of the Eighth Five Year Plan. The Ninth Five Year Plan emphasized the need for modern sports infrastructure. The Tenth Plan sought to promote both the board – basing of sports and the promotion of excellence in sports.

The comprehensive National Sports Policy 2007 aims at making the framework for sports in India more effective and inclusive with the full ownership and involvement of all stakeholders. The Policy aims at adoption a holistic approach to sports development taking into accounts the health benefits, recreation

benefits, educational benefits, social benefits, economic benefits and source of national pride that it offers. This would require a realignment of responsibilities between the Union and state Governments, on the one hand, and, on the other, between Government and the Indian Olympics Association, the Sports Authority of India, the National sports Federations and their affiliated bodies at the state and district level, and corporate bodies. This in turn might require Constitutional changes and the elaboration of a suitable legal framework. The Policy shall Endeavour to achieve a shared vision amongst all stakeholders that would be realize through convergence of their efforts. Special emphasis will be laid on mobilizing corporate support in the field of sports. The participant /athlete shall occupy centre –stage in the comprehensive National Sports Policy, with all other stakeholders playing a promotional, supportive and convergent role towards achieving the goals of mass participation, expansion of the talent pool, enhanced performance in competitive sports, and the emergence of India as a vibrant leaving –edge sporting nation in the would through transparent and effective sports systems.

"Right to information promotes transparency and accountability in the working of every public authority." The twentieth century belonged to the Industrial Revolution, in the same manner, the twenty – first century is going to belong to the Information Revolution. The Right to Information to citizens is a great step in making above statement more encompassing and meaningful.

In all free societies, the veil of secrecy that has traditionally shrouded activities of governments is being progressively lifted and this has had as salutary effect on the functioning of governments. In most democratic countries, the right of people to know is now a well-established right created under law. It is right that has evolved with the maturing of the democratic form of governance. Democracy is no longer perceived as a form of government where the participation of people is restricted merely to periodical exercise of the right of franchise, with the citizens retiring into passivity between elections. It is now a more positive and dynamic content with people having a say in how and by what rules they would be governed. The Right to Information is an obligation on the part of public authorities to disclose all the information, documents, evidences, notes to the common public in order to bring administration closer to the common people.During last some decades, all the administrative structures used to revolve around bureaucratic set up. The bureaucracy, in order to maintain its denudating position, used to keep information's under pillow i.e. secret. This deliberate tendency of secrecy made administrative system farther to public and a sense of alienation developed between the administration and the public.

The bureaucracy used this for serving own purposes. The closed model systems of organizations, with little movement of information outwards, became a nursing ground for evils, e.g. corruption, red-tapism, self-aggrandizement for bureaucracy and so on. This opaqueness did much harm to the public welfare. But the Right to Information hits at the very core of this problem by making outflow of information from organization to public easier and smoother. This brings about transparency in the administration thereby reduces the chances of corruption and red-tapism. This also helps in bringing administration closer to the citizenry.Similarly, the excessive obsession with information on the part of bureaucracy, with little information available outside, made the organization unaccountable and irresponsible for the actions and decisions they take. This made them at dominating stage with all their actions go uncontrolled and unchallenged. This was one of the worst forms of bureaucratic superiority when they enjoyed supreme authority over public.The Right to Information (RTI) has the right potential to hit at the core of problem that plague the bureaucracy led societies e.g. all the developing countries in the world. The RTI brings about a sense of togetherness with the administration in the mind of people. This helps in the marriage of administration with the common public.The most potent solution is that it brings a healthy change in the mind of people about the bureaucracy and vice-versa. The bureaucrats, hitherto enjoying considerable power and influence, that too unchecked and unresponsive, now tend to become accountable for all their deeds and actions. This helps in realization that they are working for people and by using the Public Money only. This greatly helps them to open the erstwhile closed administrative mechanism for public and there by making it more open and transparent.On the front of Accountability, the realisation on the part of employers that they are working for the betterment of people, makes them more result oriented. This attitudinal change itself help in making them responsive towards the needs of society and grievances thereof. This become essential component in the process of making bureaucrats more accountable. This is, in fact, a healthy beginning for any society towards making them more service oriented. This is essentially a prerequisite for making them accountable and responsible. The main drawback of this practice is that the welfare of public got totally sidelined and bureaucracy acted as an alien for the people.

But with the Right to Information in hand, the people can ask for the information, which are being kept secret on one pretext or other. They can ask for the amount they pay as taxes, what is being done with tax-payer's money, what are budgetary programmes for the welfare of the people and what disciplinary actions are being taken against the erring officials. This certainly helps in keeping bureaucracy accountable to public and it helps in promotion of harmony between the organization and the citizens.

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Relief From Stress: It Is In Your Finger Tips

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Introduction:

There's a thing about yoga which is unlike gymming or doing any other form of exercise – it helps you connect with your inner self and to gradually uncover it. Our inner selves are in a perpetual blissful state and yoga can help you reach there. A thing as simple as hand gestures, known as mudras in yoga, can help you relax and unwind. Mudras are done in conjunction with breathing exercises and help regulate the flow of energy throughout your body. The word Mudra has two words. First one is 'muda' and second one is 'dra'. In Samskruth, 'muda' means happiness, 'dra means drawing. That means 'drawing happiness' by practicing mudras as per the Science of mudras given by our ancient sages.These days Yoga, Ayurved and Science of Mudras have been doing the rounds all over the world. When we study and incorporate the same in our daily life, health is not a miracle but can be achieved by adopting simple methods. Since mudras are part of Yoga, they are called 'Yoga Mudras'. Nerves and energy centres keep creating energy and flowing and glowing on the outer parts of human body. That lively vital energy can enter back to the body by practising Yoga Mudras. Universe is made of 5 elements – Fire, Air, Ether/Space, Earth and Water. If we wish to be healthy, we must ensure balance among 5 elements. This is the secret of being healthy.

Electro-magnetic waves are sent to our brain when we join any one of the tips of fingers with thumb. Different mudras are formed with different fingers joining with thumb. As per the Mudra Science, this is called circuit bypass. This energy will reach the brain and incite the nerve centres which will make the energy to reach different organs of the body to activate them in right manner. Five fingers of our hand represent 5 elements. Thumb gives basic foundation to other fingers of the hand to make the body healthy. Fire element helps other elements to keep them in right proportion. We are alive only when there is fire element in the body. Thumb represents fire element.These are not as per science's definition of elements but refer to the five building blocks that go into the formation of any living body. Several ancient health systems are based on the concept of the balance of the five elements. Indian Medical science according to Ayurveda and metaphysics affirm that distortion or impairment of the 5 elements create outer disturbance and inner sickness in the body.

The Five Fingers of the Hands represent these Five Elements:

- The Thumb symbolises the Fire
- The Forefinger symbolises the Wind
- The Middle finger symbolises the Ether
- The Ring finger symbolises the Earth
- The little or small finger symbolises the Water

Keeping specified nerves stretched for specified periods tones up of the nervous system. The fingers of each hand are held folded in certain specific postures and this provides the required tension on the nerves.

The fingers of each and every individual in the world are different in their shapes and sizes. These are determined and provided by nature as a tool to bring the nerves into prime condition when affected adversely. Acupressure where the nerves are influenced by the application of pressure on certain points or Acupuncture, where slight electrical impulses are conveyed through needles inserted in the body. The advantage in Mudras is that the pressure to be applied on the nerves is automatic and controlled by the shape and size of the fingers and not by external agencies. Because the Mudras work on the nerves, they are a NEURAL SCIENCE.

Yoga Mudras Are A Hand Indication Which Allows The Flow Of Vitality. This Yoga With Hands Balances The Five Elements Namely – Air, Space, Water, Earth And Fire. Treats The Illness Caused By The Imbalances Of These Elements. Hence, He Regularly Makes Us Practice Mudras While Doing Meditations.

MUDRAS FOR STRESS RELIEF:

Gyan Mudra:

This Is The Most Common Mudra And Is Believed To Help Increase One's Concentration, Knowledge And Memory. You Can Be Sitting, Standing Or Lying Down To Do This. However, You Must Make Sure That Your Back Is Straight. To Do This, You Need To Touch The Tip Of Your Thumb To The Tip Of Your Index Finger While The Other Fingers Are Stretched Out But Relaxed. While Doing So, Focus On Your Breath.

Vayu Mudra:

This Mudra Helps Regulate Air Inside Your Body. It Is Very Helpful In Relieving Pain And Painful Joints. It Is Extremely Helpful For People Suffering From Arthritis, Gout, Rheumatism And Cervical Spondylitis. It Can Even Help Relieve Pain For Polio And Parkinson's Patients. This Can Be The Mudra Which Helps You Perform Other Asanas As Well If You Suffer From Bodily Pains As The Mudra Will Alleviate Them. To Do This, Roll Your Index Finger Towards Your Thumb So That Its Tip Touches The Mound Of Your Thumb. The Other Three Fingers Should Be Stretched Out.

Prithvi Mudra:

This Mudra Helps You Connect With Prithvi, That Is The Earth. It Helps One With Achieving A Balanced And Fulfilling Life By Strengthening His Body, Reducing Fatigue And Keeping One Grounded And Free From Irrational Thought. To Do This, Touch The Tip Of Your Thumb With The Tip Of Your Ring Finger While Keeping The Other Fingers Extended. This Mudra, Like Prana Mudra, Must Not Be Done While Lying Down.

Surya Mudra:

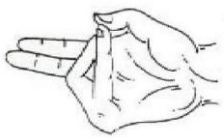
Also Known As Agni Mudra, This One Helps Regulate The Amount Of Heat In Your Body. This Mudra Helps In Boosting The Metabolism Of Your Body, Leading To Weight Loss, Helping In Obesity, Improving Eyesight, Relieving Constipation, Indigestion, Common Cold And Other Metabolism-Related Problems. To Do This, Fold Your Ring Favour So That Its Tip Touches The Base Of Your Thumb. Gently Apply Pressure With The Thumb On The Second Phalanx Of The Ring Finger. The Other Fingers Should Be Stretched Out. Avoid This Mudra If You Are Feeling Tired And Fatigued.

Prana Mudra:

This Mudra Is About Prana, Which Is Life. It Concentrates On One's Energy And Boosts Their Immunity. It Can Help Improve The Health Of Eyes And Help With Fatigue And Insomnia. To Do This, Touch The Tip Of Your Thumb With The Tips Of Your Ring Finger And Little Finger While You Stretch Out The Other Two Fingers. This Mudra Must Not Be Done While Lying Down.

1. Gyan Mudra 2.Vayu Mudra 3.Prithvi Mudra

4. Surya Mudra 5.Prana Mudra



How Do Yoga Mudras Works?

Yoga mudras alter the flow of energy through your acupuncture system. All your acupuncture meridians either begin or end in your hands or feet. When you change the position of your hands and fingers, you literally alter the prana in your body. You can think of this like rewiring the subtle currents.
Your thumbs activate your lung meridian.
Your pointer fingers activate your large intestine meridian.
Your middle fingers activate your circulation sex meridian.
Your ring fingers activate your triple warmer meridian.
Your little fingers activate both your heart and small intestine meridians.
In addition to activating the acupuncture meridians, mudras balance the five elements of fire, air, ether or space, earth and water in your body.

How To Practice Mudra?

If you have been experiencing anxiety and stress, these easy hand gestures can help you. Take a comfortable seat, and practice any of these mudras with slow and gentle breaths for 5-15 minutes. Since hasta mudras work to change the energy in the body and spirit, it's best if you incorporate conscious breathing into your practice. Breathe full and free on the inhale, and exhale the breath out completely. Find a rhythm with the breath. Try to make the inhale and exhale the same length--inhale for a count of 4, and exhale for a count of 4.Healing happens when we take advantage of natural healing remedies like yoga mudras that cost no money, can be performed anytime, anywhere by anybody and need no equipment. To believe it, you must try it, before that consult it with the experts. There is nothing to lose and much to gain.

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Job satisfaction among sport science instructors: in case of amhara regional state of Ethiopia.

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Abstract
The purpose of this study is to find out job satisfaction among sport science instructors. The descriptive study involves 56 instructors. The researchers used Job Satisfaction Survey (JSS) questionnaire to measure the job satisfaction level of job instructors in in amhara regional state of Ethiopia relation to job itself, supervision, promotion, colleagues, salary and work condition. The result shows that the Job satisfaction score of the respondents was Between 3.62 and 1.98 averages mean score on the 5point Likert scale with standard deviation of 1.26. From the six aspects of job satisfaction the most satisfying aspects of instructors were job itself (3.63 $\pm$ 1.32) and the nature of supervision (3.53 $\pm$ 0.97) , although salary (1.98 $\pm$ 1.22) and work environment (2.75$\pm$ 1.31) were the least satisfying aspects among them. The findings exposed that to some extent sport science instructors were moderately satisfied with their job.Key words: Job satisfaction, sport science, instructors

Introduction

According to Ramayah, Jantan, & Tadisina, (2001) Job satisfaction is a set of positive feelings and beliefs that an individual has about his current job. In other words, job satisfaction is the state of being happy and satisfied from what an employee is doing and the interest he is showing to follow his profession. Others also define it in different ways. job satisfaction is a pleasurable emotional state resulting from the appraisal of one's job. (Hung, 2012)

Most of studies in the field of education have shown that job satisfaction plays a vital role in achieving goals. job satisfaction has various educational impacts over educational institutes (the performance of organization and teaching quality) and students (behavior and achievements). Bogler (2002) job satisfaction leads to the high quality of productivity, reduction of absenteeism of employees and their turnovers, beside these points, job satisfaction causes mental health and affects over individuals' personal life. (Liu and Ramsey 2008)Today, sport science has become a demanding profession which requires exceptional skills. Professionals of sport have to play a very vital role and their work involves a number of duties. Their responsibilities are diverse and the society looks up to him or her as a leader who can create and maintain general fitness of the sedentary people. On one hand they are expected to produce sports persons at grass root level, serving the society in media, involving in other sport clubs and related associations. As a result, sport science professionals working in universities may feel their workload heavier, exhausting and difficult too. Some of them feel that in proportion to the expectations of the society they are not given suitable place, recognition, autonomy, working conditions, opportunities for growth and advancement and so on. All this leads to job dissatisfaction or low job satisfaction among professionals (Scott et al, 2001. As far as the knowledge of the researcher concerned, the job satisfaction of sport science instructor has not been explored in Ethiopia. Therefore, the purpose of this study is to find out job satisfaction among sport science instructors.

Methods

The descriptive study involves 51Male and 5 female sport science instructors found in six public university in the amhara regional state of Ethiopia.. Job Satisfaction Survey (JSS) questionnaire used to measure the job satisfaction level of job instructors in relation to job itself, supervision, promotion, colleagues, salary and work condition The analysis took place in the basis of coding in such a way that the options of each statement was numbered from 1 to 5(e.g.1= Strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree). Also different variables of instructor's demographics were categorized in ranges,

Findings and discussions

The findings reported in this chapter pointed out in questionnaire and relation of personal demographics with job satisfaction. Results of the study were illustrated in the form of tables.

Table 1. Frequency and percentage for socio demography characteristic of the respondent

Variables		Frequency	Percentage
Sex	Male	51	91.08%
	Female	5	8.92%
	Total	56	100%
Age	≤36	46	82.15%
	>36	10	17.85%
	Total	56	100%
Marital status	Single	17	30.35%
	Married	39	69.65%
	Total	56	100%
Educational back ground	BA degree	9	16.07%
	MA/MSC	44	78.57%
	PHD degree	3	5.36%
Work experience	≤15	45	80.35%
	> 15	11	19.65%

In this research out of the whole (56) respondents 51 (91.08%) of them were male and the rest (8.92%) were female. In terms of age, most of the respondents were relatively young aged (82.15%), the rest (17.85%) were middle aged. Furthermore, the majority (69.65%) of the respondents was married and the others (30.35%) were single. According to the educational level most of the respondents (78.57%) had MA degree. In terms of years of experience, most of the respondents were between 1-15 years (80.35%) and (19.65%) above 15 years of experience.

Level of job satisfaction among instructors

The level of job satisfaction in each aspect was measured based on the responses in Specific category. Each aspect contained a set of sentences, therefore by adding the percentage of all answers, the researcher found the table below. (Table 2)

Table 2. Level of job satisfaction from different aspects

Job satisfaction dimensions	Number of participant	Mean (standard deviations)
Job itself	56	3.62 (± 1.32)
Promotion opportunity	56	3.21 (± 1.33)
Nature of supervisions	56	3.53 (± 0.97)
Colloquies relationship	56	3.12 (± 1.44)
Salary and bones	56	1.98 (± 1.22)
Working environment	56	2.75 (± 1.31)
		Overall mean 3.03 (±1.26)

As the above table indicates, General Job satisfaction score of the respondents was
Between 3.62 and 1.98 average mean score on the 5point Likert scale with standard deviation of 1.26. From the six aspects of job satisfaction the most satisfying aspects of instructors were job itself (3.63 ± 1.32) and the nature of supervision (3.53 ± 0.97) , although salary (1.98 ± 1.22) and work environment (2.75± 1.31) were the least satisfying aspects among them. The findings exposed that to some extent sport science instructors were moderately satisfied with their job. These findings are inconsistent with previous studies on job satisfaction (Wood, 2008, Robbins and Judge, 2008). Ombeni William Msuya, 2016).

Conclusion and recommendation

The result of the study examined that generally sport science instructors are averagely satisfied with their job. Particularly, two aspect of job satisfaction namely job itself and the nature of supervisions was the most satisfied aspect. However, they are dissatisfied with monthly salary and work condition with in their university. Furthermore, they are also less satisfied with the promotion opportunity and the relationships between instructors. This study is not without limitations, as it was done in small sample of instructors so it is difficult to generalize it into other universities across the country. Therefore, further investigation is needed to verify the issue. In spite of above limitations, this research is unique and valuable cause of being the first attempt toward understanding about six aspects of job satisfaction of instructors in Amhara regional state of Ethiopia.

Reference

Bogler, R. (2002).Two profiles of school teachers: a discriminate analysis of job satisfaction. Teaching and Teacher Education 18, 665–673

Hung, C. L. (2012). Internal Marketing: Teacher's job satisfaction and effectiveness

Liu X. S. & Ramsey, J. (2008) Teachers' job satisfaction: Analysis of the Teacher Follow-up Survey in the United States for 2000–2001. Teaching and Teacher Education, 24(5), 1173–1184.

Ombeni William Msuya (2016) Exploring levels of job satisfaction among teachers in public secondary schools in Tanzania, International Journal of Educational Administration and Policy Studies, vol. 8(2) pp 9-16

Ramayah, T., Jantan, M., & Tadisina, S. K. (2001). Job satisfaction: Empirical evidence for alternatives to JDI. In 32 nd Annual Meeting of Decision Sciences Institute Conference, San Francisco: USA.

Robbins SP, Judge TA (2008). Essentials of Organizational Behavior, New Jersey: Pearson Education.

Scott, C. et al 2001""I love teaching "International patterns of Discontent," Educat. Pol .Anal. Arch. 9(28) 66.71

Wood S (2008). Job Characteristics, Employee Voice and Wellbeing in Britain. Ind. Relat. J. 39(2):153-168.

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A Pilot Study: Impact Of Mobile Health (Mhealth) Technology In Overweight And Obese Knee Osteoarthritis Patients

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Abstract:
The objectives were to determine the impact of MHealth technology on the feasibility, body mass index, functional capacity and quality of life. Thirty six overweight and obese knee osteoarthritis patients were enrolled in the study for twenty days. The participants were divided into Intervention Group with Mobile Health Technology (IGWMHT), Intervention Group without Mobile Health Technology (IGWOMHT) and the Control Group (CG), randomly. Both intervention groups were provided twenty days of lower and upper body rehabilitation protocol but the CG did not. The mobile phone messages, four times a week, were provided to the IGWMHT patients. Statistical Package for Social Sciences (SPSS) 16 was used to manage and analyze the data. One way analysis of variance was used to see the statistical significant difference among the groups. Body weight in IGWMHT and IGWOMHT is decreased by 1.3 kg and 0.8 kg respectively. Six minute walk test distance is increased 25 cm and 16 cm in IGWMHT and IGWOMHT respectively. Functional capacity and quality of life are slightly improved. There are no changes in the control group. The result of this pilot study demonstrated that MHealth technology is linked with reduced body mass index, increased functional capacity and quality of life.
Key Words: *Mobile Health Technology, Obesity, Overweight, Knee Osteoarthritis*

Introduction

Osteoarthritis (OA) has been described as a condition characterized by use-related joint pain experienced on most days in any given month, for which no other cause is apparent (Agel J et al., 2000). Knee OA also has a high and increasing cost, mostly attributable to arthroplasty (Losina et al., 2015). A recent study (Alfieri, et al. 2017) concluded that the excess of weight and adiposity or obese had a negative impact in increasing pain perception of patients with osteoarthritis. There is a gap in literature for utilizing mHealth technologies to increase the effectiveness of OA self-management intervention delivery (Choi, et al. 2017; Grunloh, et al. 2018). Health related services via a mobile device are known as MHealth (Labrique et al., 2013). Mobile health technology is the need of time especially for the overweight or obese knee OA patients to reduce weight and enhance the quality of life.

Methodology:

2.1. Participants.

Participants were recruited via word of mouth by contacting with political and welfare organizations in the recruitment area. Inclusion criteria were a body mass index (BMI) for overweight will be BMI ≥ 25kg/m^2 and for obese BMI > 30kg/m^2. Exclusion criteria were an identified flat foot & spinal deformities. The study was approved by the institutional review board of Malaya University, and all participants provided written informed consent before participation in the study.

2.2 Study Design

Single blinded randomized controlled study design

2.3 Study Population and Sample Size

Overweight and obese knee OA patients from the urban area of Lahore, Pakistan

2.4 Study Randomization

The researcher randomized the 36 participants equally into three groups, intervention group with mobile health technology (IGWMHT), intervention group without mobile health technology (IGWOMHT) and the control group (CG).

2.5 10 Week Exercise Protocol

Participants enrolled in a 20 day Exercise Protocol, three times a week, consisting of warming up of 10 minutes followed by lower limb rehabilitation exercise with the help of elastic band and force of gravity and cooling down of 10 minutes to both IGWMHT and IGWOMHT groups. Text messages, two text messages

per day with 10 week exercise protocol, with the help of MHealth technology were provided only to IGWMHT. The control group did not get text messages and 10 week exercise protocol.

2.6 Height and Weight

Height was measured with a portable stadiometer, Perspective Enterprises, Portage, MI, USA, and weight was measured with a Seca 888 Scale, Seca, Hamburg, Germany.

2.7 The Six-Minute Walk Test

The object of this test is to walk as far as possible for 6 minutes. Participants were instructed to walk as much distance as possible without running in six minutes, walking was enforced with encouragement. The distance covered over a time of 6 minutes was used as the outcome by which to compare changes in performance capacity. Only stop watch was required for recording of time.

2.8 Functional Capacity

For functional capacity assessment gait speed test was used. Gait speed is the recording of the time the patient completes a distance of 20 feet and then divides the distance to time. Gait speed measures obtained during a single test session are reliable. Gait speed test is *used* as an outcome *measure* in rehabilitation (skinner & turner, 2006) and in trials of interventions to delay the onset of disability or frailty (Fairhall et al. 2008).

2.9 Quality of Life

The Western Ontario and McMaster Universities (WOMAC) questionnaire that is already adapted and validated (Alexandre et al., 2008) was used.. The WOMAC score changes from zero to four on a Likert-type scale, the higher the score, the worse the pain, joint stiffness and functionality. Three dimensional quality of life questionnaire records the perception of pain, joint stiffness and functionality (Grotle et al., 2008).

3.0 Statistical Methods

Statistical Package for Social Sciences 16 (SPSS-16) was used to manage and analyze the data. One way Analysis of Variance was used to see the difference among the groups. Post Hoc Analysis of Variance was used to see the statistically significantly different between the two groups.

Results and Discussions

3.1. Descriptives

Thirty-six overweight and obese knee OA patients were enrolled in the current pilot study. Demographic characteristics of the selected overweight or obese knee OA at baseline evaluation are presented in Table 1. As shown below. 3.2 Six-Minute Walk Test

The 6MWT was significantly increased in both intervention groups (IGWmHT and IGWOmHT) after 20 days of exercise treatment protocol. The 6MWT was increased 25 cm and 16 cm in IGWMHT and IGWOMHT respectively. There was no change in the 6MWT in the control group.

Table 1: demographic characteristics

	IGWMHT (N = 12)	IGWOMHT (N = 12)	CG (N = 12)	P
Age (years)	57 ± 2.9	56.9 ± 3	56 ± 4	0.71
Gender (male/female)	2/10	4/8	3/9	0.94
Height (cm)	165.0 ± 10.4	170.0 ± 10.9	168.0 ± 11.5	0.39
Weight (kg)	84.6 ± 15.1	89.0 ± 16.3	87.5 ± 17.8	0.46
Body mass index (kg/m^2)	31.0 ± 8.8	30.8 ± 5.7	27.9 ± 9.1	0.35
Marital status (married/unmarried)	11/1	12/0	10/2	0.30
Educational level (10 years/above 10 years of education)	1/11	2/10	1/11	0.80
Values are the mean + SD unless otherwise indicated. IGWMHT = Intervention group with mobile health technology: IGWOMHT = Intervention group without mobile health technology: CG = Control group:				

Table 2: Changes in six minute walk test, gait speed, pain and physical function from baseline to final evaluation

	IGWMHT (N = 12)	IGWOMHT (N = 12)	CG (N = 12)
6MWT (m)			
Baseline Evaluation	509.98 ± 20.3	501.80 ± 17.4	499.69 ± 21.2
Final Evaluation	510.23 ± 18.6	501.96 ± 19.23	498.99 ± 19.9
Gait Speed (feet/second)			
Baseline Evaluation	2.80 ± 1.12	2.77 ± 1.10	2.95 ± 0.93
	2.90 ± 1.23	3.06 ± 1.90	2.93 ± 0.46

Final Evaluation	33.2 ± 10.0	35.6 ± 7.7	31.9 ± 12.3
WOMAC function (0-68)	32.9 ± 9.0	34.0 ± 6.5	31.1 ± 13.9
Baseline	13.6 ± 1.9	12.9 ± 2.4	14.3 ± 6.6
Evaluation	13.1 ± 2.0	12.0 ± 5.5	13.6 ± 3.0
Final Evaluation			
WOMAC pain (0-20)			
Baseline			
Evaluation			
Final Evaluation			
Values are the mean = standard deviation. 6MWT = Six minute walk test; WOMAC = Western Ontario and McMaster Universities Osteoarthritis Index			

3.3 Discussions

The current study (20 days exercise protocol) was associated with significant improvements in weight in both intervention groups (IGWMHT and IGWOMHT) compared with the control group. In contrast, the control group did not show significant changes for any of the outcomes measured. It is noteworthy that with the involvement of MHealth technology there is more reduction of weight than without MHealth technology. Previous investigators have reported that, by using elastic resistance devices, older adults can improve lower-extremity strength by 6% to 26% and decrease the percentage of disability by 15% to 18% (Topp et al., 2002). A study (Jan et al., 2009) expected that participants with OA who undergo either weight bearing or Non weight bearing resistance exercise training will exhibit improvements in functional capacity.

Conclusions

The result of this pilot study demonstrated that MHealth technology is linked with reduced body mass index, increased functional capacity and quality of life. The study design is feasible. A large sample size is necessary for statistically significant evidence.

References

Agel, J., Akesson, K., Amadio, P. C., Anderson, M., Badley, E., Balint, G., ... & Bjorke, P. A. (2003). The burden of musculoskeletal conditions at the start of the new millennium. *World Health Organization-Technical Report Series*, (919).

Alexandre, T. D. S., Cordeiro, R. C., & Ramos, L. R. (2008). Factors associated with quality of life in elderly patients with osteoarthritis of the knee. *Physiotherapy and Research*.

Alfieri, F. M., & Battistella, L. R. (2017). Study of the relation between body weight and functional limitations and pain in patients with knee osteoarthritis, *Einstein (São Paulo)*, 15(3):307-12, DOI: 10.1590/S1679-45082017AO4082

Choi, W., Zheng, H., Franklin, P., & Tulu, B. (2017). mHealth technologies for osteoarthritis self-management and treatment: A systematic review. *Health informatics journal*, 1460458217735676.

Fairhall, N., Aggar, C., Kurrle, S. E., Sherrington, C., Lord, S., Lockwood, K., & Cameron, I. D. (2008). Frailty intervention trial (FIT). BMC geriatrics, 8(1), 27.

Grunloh, C., Myreteg, G., Cajander, Å., & Rexhepi, H. (2018). "Why Do They Need to Check Me?" Patient Participation Through eHealth and the Doctor-Patient Relationship: Qualitative Study. *Journal of medical Internet research*, *20*(1), e11.

Grotle, M., Hagen, K. B., Natvig, B., Dahl, F. A., & Kvien, T. K. (2008). Obesity and osteoarthritis in knee, hip and/or hand: an epidemiological study in the general population with 10 years follow-up. *BMC musculoskeletal disorders*, *9*(1), 132.

Jan, M. H., Lin, C. H., Lin, Y. F., Lin, J. J., & Lin, D. H. (2009). Effects of weight-bearing versus nonweight-bearing exercise on function, walking speed, and position sense in participants with knee osteoarthritis: a randomized controlled trial. *Archives of physical medicine and rehabilitation*, *90*(6), 897-904.

Labrique, A. B., Vasudevan, L., Kochi, E., Fabricant, R. & Mehl, G. (2013). mHealth innovations as health system strengthening tools: 12 common applications and a visual framework. *Global health: scienc and practice*, *1*(2), 160-171.

Skinner, A., & Turner-Stokes, L. (2006). The use of standardized outcome measures in rehabilitation centres in the UK. Clinical rehabilitation, 20(7), 609-615.

Topp, R., Woolley, S., Hornyak III, J., Khuder, S., & Kahaleh, B. (2002). The effect of dynamic versus isometric resistance training on pain and functioning among adults with osteoarthritis of the knee. *Archives of physical medicine and rehabilitation*, *83*(9), 1187-1195.

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Study On Application Of Improved Gaussian Mixual Model On Target Detection Of Track Events Videos.

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Abstract:
In order to analyze the performance of athletes in videos, an improved hybrid Gaussian model algorithm was proposed for multi-objective detection of track events videos. When the parameters of the background model are updated,for pixels that meet the background update criteria,this algorithm suggests predicting the present frame by utilizing the binary image detected by the previous one, and updating background by adopting different updating strategies for different situations. Experimental results demonstrate that improved algorithm can extract more complete prospect target. A large number of video experiments showed that the average foreground detection rate of the improved algorithm was higher than 90%. The results obtained from the experiment can be used to evaluate the performance of athletes in track events,to direct subsequent training and competition, to make pre-warning of accidents in training and competition, to assess the performance and levels of athletes objectively, etc.
Key words: track events,target detection ,behavioral analysis,Gaussian Mixture Model

Introduction

The analysis of video of athletes' training or competition by means of informationization which can obtain the information that coaches and athletes demand and can provide specific reference for guiding athletes' special training scientifically is of great significance to the improvement of athletes' competition level. With the further development of video monitoring technology, the research on this field has attracted wide attention of scholars.Aiming at heel-and-toe walking race video, Guowei Wang et al.(2016) used behavioral vision algorithm to find the error action rule, so as to guide training.In addition,not aiming at any specific videos, tieliu Wang et al. (2016)established the physical movement characteristic model of human body movement, providing reference for physical education teaching and training;Xu Feng et al. (2006)studied the endpoint determination method based on digital image analysis.Although some achievements have been made in the content analysis of sports videos by relevant scholars, the depth and breadth of relevant studies still need to be further explored. It can be predicted that the identification and understanding of sports videos will become a hotspot in the cross field of sports science and computer science.

In track events where performance is calculated by time,stride,stride frequency and coordination degree of movement will all affect the performance of athletes. In order to evaluate the performance of athletes through videos in the past, a complete foreground detection is required first (Extract the target information in videos). Therefore,the article puts forward an improved hybid Gaussian model algorithm. The basic idea of this algorithm is to predict the current frame through the binary image detected in the previous frame when the background model parameters are updated, and to update the background with different background update strategies for relevant pixels. The main contribution of this algorithm is that it can achieve background update quickly and accurately, so as to extract more complete foreground targets. After that, this artical makes the experimental simulation and statistic analysis, and gives the potential application of the experiment results.

Discussion

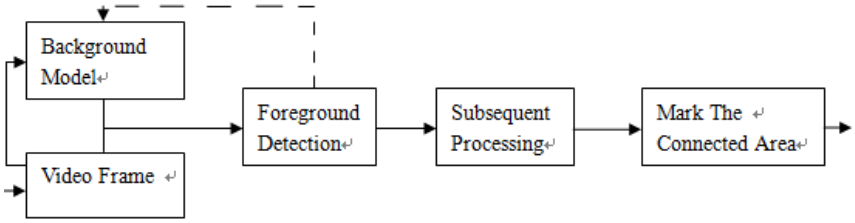
2.1. Target prospect detection

2.1.1 .Principle of target prospect detection

In videos of track and field sports, the effective detection of target prospect is the basic work of later application such as target behavior analysis and video understanding. Background subtraction is a typical foreground detection method, and its processing is shown in figure 1. It can be seen that it is pivotal to select the appropriate background modeling algorithm. Typical background modeling methods include mean and median filtering, single Gaussian and hybrid Gaussian background modeling, linear predictive filtering, codebook model, W4 algorithm, (Haritaoglu&Harwood&Davis,2000),ViBe algorithm(Barnich&

Droogenbroech,2009), SOBS algorithm(Maddalena&Petrosino,2012), etc. The detection performance of different algorithms often depends on their using environment. At present, there is no universal prospect detection algorithm suitable for all occasions. The Gaussian mixture model proposed by Stauffer et al.(Stauffer&Grimson,2000),which uses multiple Gaussian distributions to smoothly simulate pixel changing, has been widely applied in background modeling because it can deal with the situation of multiple modes in the background.

Figure 1. The basic treating process of background subtraction



2.1.2 .Traditional hybrid Gaussian model foreground detection algorithm

In the hybrid Gaussian model foreground detection algorithm proposed by Stauffer, the pixel at the same position in video sequence is regarded as a time series, which is expressed as follows:

$$\{X_1, X_2, ..., X_t\} = \{I(x_0, y_0, i) : 1 \le i \le t\} \quad (1)$$

The probability of the current pixel occurrence is expressed by the weighted sum of K mixed Gaussian functions:

$$P(X_t) = \sum_{k=1}^{K} \omega_{k,t} * \eta(X_t, \mu_{k,t}, \sigma_{k,t}^2) \quad (2)$$

Here, $\omega_{k,t}$, $\mu_{k,t}$, $\sigma_{k,t}^2$ are the weight,mean value and variance of the k th Gaussian function respectively,and η is the Gaussian probability-density function.

For the new frame, after obtaining the observed value of each pixel,calculate whether the observed value matches the K gaussian models. At any pixel X_t at time t, its matching formula with K Gaussian distribution is as follows:

$$M_{k,t} = \begin{cases} 1 & if \left| X_t - \mu_{k,t} \right| < D\sigma_{k,t}, \quad k = 1, 2, ..., K \\ 0 & otherwise \end{cases} \quad (3)$$

That is, the observed value of pixel is in the range of the D standard deviation of the K th Gaussian distribution in the Gaussian mixture model, then it is considered to match the k th sub-model. Let $M_{k,t} = 1$,otherwise let $M_{k,t} = 0$.

The parameter updating strategy of Gaussian mixture model is as follows:

$$\omega_{k,t} = (1-\alpha)\omega_{k,t-1} + \alpha(M_{k,t}) \quad (4)$$

$$\mu_{k,t} = (1-\rho)\mu_{k,t-1} + \rho(X_t) \quad (5)$$

$$\sigma_{k,t}^2 = (1-\rho)\sigma_{k,t-1}^2 + \rho(X_t - \mu_{k,t})^T (X_t - \mu_{k,t}) \quad (6)$$

Among this, α is the learning rate,and ρ is the parameter renewal rate.

2.1.3. Improved hybrid Gaussian model foreground detection algorithm

The basic idea of the improved hybrid Gaussian model foreground detection algorithm is to use the binary image detected in the previous frame to predict the current frame,and the Gaussian model parameter update strategy for each pixel in the current frame is to select adaptively according to the specific situation. Record the background and foreground detected in the last frame as a sum respectively. When each pixel changes from the previous frame to the current frame, the following situations may occur:

(a) $B_{t-1} \to B_t$

That is, the pixel in the previous frame is the background, and in the current frame is still the background. At this time, only the effects of lighting and camera jitter should be considered,and parameters of mixed Gaussian model were updated normally.

(b) $B_{t-1} \to F_t$ (c) $F_{t-1} \to F_t$

That is, the pixel is the background in the previous frame, and becomes foreground in the current frame, or the pixel is the foreground in the previous frame, and still foreground in the current frame. In both cases, Gaussian model parameters are not updated.

(d) $F_{t-1} \to B_t$

That is, the pixel in the previous frame is the foreground, and becomes the background in the current frame. At this point, the updating speed of Gaussian model parameters is increased in order to quickly model and restore the background.

In the above analysis, when the previous frame changes to the current frame, the relative motion pixels can be quickly and accurately positioned using the inter-frame difference method, so as to determine which of the above situations occurs.

In those pixels with the previous frame as the background, make deviation calculation between current frame pixel value and corresponding previous frame pixel value:

$$\left|C(x_i, y_j) - Q(x_i, y_j)\right| < T' \qquad (x_i, y_j) \in B_{t-1} \tag{7}$$

The above formula can distinguish the case (a) from the case (b). If the above formula is true, it is case (a), otherwise it is case (b). In this situation, T' is the threshold detection.

Similarly, in those pixels with the previous frame as the foreground,make deviation calculation between current frame pixel value and corresponding previous frame pixel value:

$$\left|C(x_i, y_j) - Q(x_i, y_j)\right| < T' \qquad (x_i, y_j) \in F_{t-1} \tag{8}$$

The above formula can distinguish the case (c) from the case (d). If the above formula is true, it is case (c); otherwise, it is case (d).

2.1.4. Mathematical morphological treatment

Mathematical morphological treatment is a very important step in the subsequent process, which mainly includes the following steps:

1.The disk structuring element is used to "corrode" the initial foreground detection result, which can remove the isolated noise point and break the bond between the target and the background.

2.Mark the connected region. According to the location relation of pixel points, each region is labeled with different "marks", and then different regions named different targets, are extracted.

3.Remove the target area less than a certain number of pixels.

The above steps mainly use the MATLAB image processing tool kit of the built-in functions,such as strel、imerode、bwlabel、regionprops、bwmorph,etc.

2.2.Experimental results and analysis

2.2.1.The experimental results

In order to verify the effectiveness of the method in this paper, a section of video during athletes' sprint was taken from video in the men's 5,000m final of the 2008 Beijing Olympic Games as experimental material, and was extracted and processed by computer. The software used in the experiment was MATLAB 2012b, and the hardware environment was Intel Core i7, 8G DDR and SSD 120G. Take 5 consecutive video frames from the footage, as shown in figure 2.

Figure 2. Video frames for experiment (five consecutive frames for example)

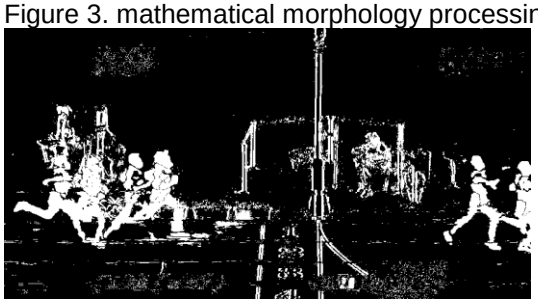
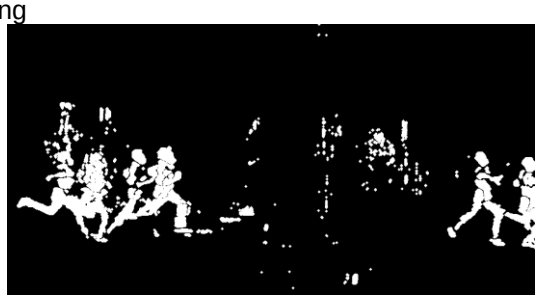
(a) Frame 1 (b) Frame 2


（a）Frame 3　　（b）Frame 4

（d）Frame 5

The 5 consecutive video frames (figure 2) were processed, and the experimental results were shown in figure 3. Figure 3 (a) is a foreground target obtained using the improved hybrid gaussian model algorithm,Figure 3 (b) is the result of mathematical morphological treatment of "erosion operation",FIG. 3 (c) is the result of marking the connected region and removing the target region less than a certain number of pixels,Figure 3 (d) is the final result of further processing in the area-of-interest.

Figure 3. mathematical morphology processing

（a）The initial results　　（b）After using the erosion operation


（c）Remove the connected region less than a certain number of pixels　　（d）Final result

2.2.2.statistical analysis

In order to evaluate the algorithm performance, foreground detection rate DRwas introduced(Prati&Mikic&Trivedi,2003). The calculation formula is as follows:

$$DR = \frac{TP}{TP + FN} \quad (9)$$

Among them, the TP is true positives, FN is false negatives, the denominator represents the pixel counts being correctly detected, molecular represents the actual foreground pixels. Related concepts can be found in table 1.

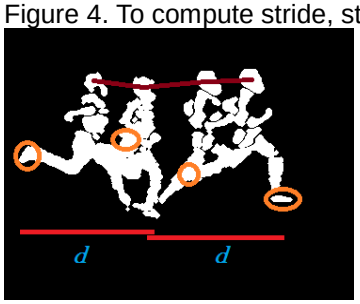
Table1. Several concepts related to DR

	Forecast for 1	Forecast for 0	Total
The actual is 1	True Positive (TP)	False Negative (FN)	Actual Positive (TP+FN)
The actual is 0	False Positive (FP)	True Negative (TN)	Actual Negative (FP+TN)

2.2.3.Further discussion and outlook

The method proposed in this paper can be used as part of the analysis system of athletes' sports behavior. Video analysis can be used to obtain the movement parameters of all parts of athletes: To evaluate the athletes' performance on the field from whether the stand-up of the head, the swinging posture of the arm, the forward and upward movement of the knee, the bending degree of the knee, the position of the foot on the ground, the front stiffness of the hip and so on, are standard or not. And the data of the above sections can be used to analyze and guide the next training and competition. As shown in figure 4, several possible applications such as stride, step frequency and coordination degree of various parts of the body can be calculated. Step width d, the number of steps changed per unit time named step frequency, head posture, knee bending degree, body center of gravity when the foot falls, and other calculated coordination degree, can be obtained through further analysis of the image.

Figure 4. To compute stride, step frequency, coordination degree, etc.



In addition, this method can also be used for accident warning (such as leg muscle and tendon injury caused by footfall posture) and objective evaluation of athletes' level. The method in this paper also has some shortcomings,it doesn't work very well for those videos that the camera is moving continuously.

conclusion

Based on the knowledge of image processing, machine vision, video content understanding and other fields, the seemingly illogical video of sports is intelligently analyzed to obtain the key information of the target in video, identify and understand the movement behavior of the target, which can guide the subsequent training or competition.

The improved hybrid Gaussian model algorithm is used for multi-objective detection of track events videos. The experimental results show that the improved algorithm combined with subsequent mathematical morphological treatment can effectively extract the complete foreground targets. It has laid a foundation for the analysis of athletes' behavior in the following track events videos and provided an effective reference for the assistant coaches to timely and accurately evaluate athletes' performance in the field and post-competition training.

References

Guowei Wang.(2016) Simulation of track and field error recognition based on visual image[J]. Computer Simulation , 33(4): 274-277.

Tieliu Wang.(2001). Research and application of computer technology on sports technology action feature model[J].Journal of Beijing University of Physical Education, 24(4): 575-576.

Xu Feng, Peifeng Zhao, Zhiyu Liu.(2006). Research on digital processing technology of sports images at the end of sports competition[J]. Journal of Natural Science,Harbin Normal University, 22(4): 104-108.

Haritaoglu I, Harwood D, Davis L S. (2000).W4: Real-time surveillance of people and their activities[J]. IEEE Transactions on Pattern Analysis and Machine Intelligence, 22(8): 809－830.

[14] Barnich O, Droogenbroech M V. (2009).VIBE: A powerful random technique to estimate the background in video sequences[C]. //International Conference on Acoustics, Speech and Signal Processing, 2009: 945－948.

Maddalena L, Petrosino A. (2012)The SOBS algorithm: What are the limits?[J]. Computer Vision and Pattern Recognition Workshops, 11(2): 21－26.

Stauffer C, Grimson W E L.(2000). Learning patterns of activity using real-time tracking[J]. IEEE Transactions on Pattern Analysis and Machine Intelligence , 22(8): 747－757.

Prati A, Mikic I, Trivedi M, et al. (2003).Detecting moving shadows: Algorithms and evaluation[J]. IEEE Transactions on Pattern Analysis and Machine Intelligence, 25(7): 918－923.

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A Review on: Plyometrics Training in Children and Adolescents' Volleyball Players

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Abstract
Nowadays many youth volleyball players are occupied in specific sports and that causes immense interest of coaches to apply safe and proper methods. Volleyball is mainly popular sports amongst this cluster. Due to, great and explosive actions in addition elevated-frequent jumps and landings appropriate training plan should be considered to develop performance and avoid injuries in adolescents and children. The purpose of this study is to evaluate studies regarding plyometrics training and effects of this exercise technique on physical condition in children and adolescents. My investigation begun with search engine and scientific databases with keywords in three sections; title and abstracts, articles and lastly references. major research articles were chosen if they (a) incorporated outcomes of a plyometrics training involvement,(b) built-in volleyball training protocols, (c) incorporated children and adolescents 10–17 years of age. Evaluation prove that plyometrics training enhances physical and technical skills of volleyball players . Improvements in motor performance skills, such as jumping, are widely stated as indicators of improvements in sporting performance. Although plyometrics is a useful method for jumping improvement little is available about the effects on children and adolescents. Keywords: Volleyball; plyometrics training; adolescents; children; jumping.

Introduction
Current volleyball needs for player an excellent physical stamina; similarly it is very important to increase velocity and explosive power. Volleyball is in addition a group sport, where next to the high-quality harmonization and talent comes up to the vital place squad players' good rapprochement and collaboration (Järvekülg, 2002). Upright jump capacity is decisive for achievement in volleyball. Jumping is applied through the jump set, jump serve, blocking and attacking. A victorious player must not only be capable to jump far above the ground but must also be able to arrive at that elevation rapidly. It requires a capacity to produce power in a very short moment (Powers,M, 1996). The usage of force during the play is determined by the fact that the use of upper limit strength lasts from 0.5 to 0.7 seconds; Conversely, most of the explosive moments take largely a lesser amount of time. Pro this reason the best usage and change of the gained highest muscle force into the "explosivity" of the major muscle group of the inferior extremity, which get part in the takeoff, need unique power exercise (Lehnert et al., 2009). Plyometric drills have been revealed to develop jump performance in several sports activiies. These trainings combine strength with velocity of movement to generate power. Via using the myotatic stretch spontaneous effect of the muscle to generate an explosive reaction, plyometric is supposed to be the link between velocity and force (Powers, 1996). The plyometric technique is ranked amongst the most often used techniques for physical fitness in volleyball (Lehnert et al., 2009).
Depth jumps contain an extremely great exercise effect hence,the amount of work should be low, no more than 4 sets of 10 repetitions, 2-3 times per week for advanced athletes and 3 sets of 5-8 repetitions, 1-2 times per week for lower classes of athletes (Baggett, 1995). A two- or three-day rest (48 hour minimum) between sessions will allow full recovery of the musculoskeletal system and further enhance adaptation. The number of repetitions and sets vary depending upon the intensity of the drill. As a rule, a low intensity exercise requires more repetitions. An exercise with a higher degree of difficulty requires fewer repetitions (Brittenham, 1995).

For youth aged 9–13 years who show an attention in the sport and desire to play it competitively, a developmentally proper version of volleyball has been invented,Called “mini-volleyball,” the sport is tailored to preadolescent athletes and permits them, Volleyball Handbook (Japan; 2008).
to learn the vital elements and skills of the sport in a secure surroundings(Therefore, it seems that designing appropriate and suitable training programs for children and adolescents particularly when participating in an structured sport such as mini-volleyball is of the huge concerns for scientists and coaches. The intention of this systematic evaluation was to study the degree and merit of the modern research literature, to review the competence and safety of plyometric training for developing motor performance in young children, and to decide if this kind of training could be used to develop the motor skills of children and adolescents who take part in structured sports such as mini-volleyball.
History
Until the 1970’s plyometric exercises or “jump training” was not began to gain popularity in the United States. Jump training was used mainly in eastern European communities by the top athletes (Verkhoshanski Y.969) in sports like track and field, weightlifting, and gymnastics. Veroshanski was among one of the first to publish a series of jumping drills. Previously, the word “plyometric” comes from two Greek words, plio, meaning “more” and metric, meaning “to measure”, or more accurately “measurable increase.” The word plyometric was coined in 1975 by one of America’s great track coaches, Wilt F.

Materials And Methods
Toward finding pertinent literature on various types of training, citations and abstracts were known during a search using the Proquest search engines and Science direct from September 2017 up to December 2017. Articles available in English and in peer reviewed journals were well thought-out for the evaluation. The initial search focused on finding literature using physical activity in children. Search terms included ‘‘physical activity for children,’’ ‘‘children and adolescents sports,’’ ‘‘fun physical activity for children and adolescents,’’ ‘‘exercise for children’’ in various combinations. Next search continued by adding new keywords focused on volleyball and different training programs. The following search terms were used in various combinations to identify primary research articles including ‘‘children and adolescents training programs,’’ ‘‘children jumping performance,’’ ‘‘jump training,’’
‘‘plyometric for children and adolescents,’’ ‘‘plyometric training for volleyball,’’ ‘‘improving jumping performance in children volleyball players,’’ ‘‘jump training,’’ ‘‘mini volleyball jumping ,’’ and ‘‘sport performance.’’ The earliest randomized control trial to describe motor outcomes of training in children was published in 1971. Therefore, no year restriction was placed on the search. In the first stage of screening, titles and abstracts of identified articles were checked for relevance. In the second stage, full-text articles were retrieved and considered for inclusion. In the final stage, the reference lists of retrieved full-text articles were searched for additional articles. Primary research articles were selected if they (a) participants were aged 10–187years and selected from a sports or athletic population (defined as participants who engaged in organized sports training); (b) study involved the evaluation of a plyometric training with an aim to improve sports performance where explosive power is necessary for success; (c) study was a randomized controlled trial or single group pre-test posttest design with respect to jumping performance improvement. Articles that met the 3 inclusion criteria were chosen for the final review. 152 titles were found and articles including training procedure for rehabilitation and for children and adolescents with impairment such as poor motor performance were omitted.

Discussion
Jump Mechanics in volleyball
Vertical jump ability is critical for success in volleyball. Jumping ability exercises are very dynamic, Hedrick A, & Anderson J.(1996). These drills activate the entire muscle groups and arrange their events. They are a functional result of speed and strength, and demand good coordination, Faigenbaum A.,(2000). Jumping is utilized during the jump set; jump serve, blocking and spiking movements , Holcomb W,et al (1998). The capacity to leap high and arrive at upper limit height rapidly creates a winning player. This requires an ability to generate power in a very short moment, Holcomb W,et al (1998). Exercises like plyometrics are able to link strength with speed of movement to produce power extremely effective, Chu D.(1998).
Players sense that jumping is somewhat that they very soon accomplish and they don’t want exercise pro it, while jumping up perpendicularly is a talent that could be trained to them, Howard L.(2004). When one examines the vertical jump, they can see that as an athlete jumps in the air, that jump is preceded by a counter-movement. It is during this countermovement, where the center of gravity takes over, causing the athlete to drop hurriedly, McClellan T.(2005).
The vertical jump can be analyzed in three different phases; the preparatory , take off , and landing,. Faigenbaum A, & Chu D.(2001). When we see at straight up jump, the initial site (preliminary phase) is

flexed. In this situation, the knees, hips, and ankles are at the same time bowed, in addition to the upper body. Here, the muscles are actually being stretched (eccentric contraction) stimulating the stretch receptors (muscle spindles) increase here, McClellan T.(2005). As the athlete moves into the take off phase, and the body extends, the muscles quickly contract to produce a greater amount of force (concentricphase). The takeoff velocity ultimately determines the jump elevation Holcomb W, et al(1996). The essential power to take off is initiated as a result of the "elongation'' of muscles. When the body is attracted by gravity in the grounding phase, the body proceeds to the bowed deceleration point, takes an eccentric tightening once more on the muscle to suck up the power that is positioned on the limbs, Howard L.(2004).

The arm swing during the take off phase is an important component that assists the vertical jump. During the starting position, the arms are extended back, and then as the body moves into extension the arms swing upward into flexion. Past this point they are only able to decelerate, which allows the body to begin to liftoff, Holcomb W,et al(1998). Pro highest power improvement, the players would desire to have their arms elongated and straight to rise bar distance. The use of the arms has been shown to have a significant effect on peak force in jumping, Kroon S.(2001), found that the arms contribute an average of 10% Start to the intial speed during a straight up jump. Arm swing is vital to straight up jumping action, which might show there is a method or skillfulness constituent to straight up jumping, rather than just leg power, Hedrick A, & Anderson J,(1996).

Although both anticipation and practice will help the athlete reach their vertical jump height, it is the strength of muscles and coordination that will produce a good vertical jump height, Smith T.(1996). To maximize jump height, the athlete must coordinate a head-to-toe effort, This provides a good reason for including plyometric exercises in the overall training program, Potteriger JA,(1999).

Muscle Physiology

Muscles are our solitary musculoskeletal structures that contain the capacity to elongate and contract. They own an exceptional skill to convey vibrant activity to the body Potteriger JA, et al.(1999). Each muscle is comprised of extrafusal and intrafusal muscle fibers. Extrafusal fibers contain myofibrils, the elements that contract, relax and elongate the muscles McClellan T.(2005). Muscles spindles are the major stretch receptors in the muscles.

During plyometric exercises, the muscle spindles are stimulated by a rapid stretch, causing a reflexive muscle action Chimera N,et al,(2004).Both extrafusal and intrafusal muscle fibers play an important role in the muscle contractions that are initiated during the plyometric exercise. McClellan T.(2005). Muscle contractions can be generated by the body and are used during all movement, including sports activities McClellan T.(2005). Muscle contractions that are drawn in these movements are eccentric, isometric, and concentric contractions. Elongating of the muscle under tension is an eccentric contraction, and is used to help slow down the body. When there is no change in the muscle, yet tension is applied and an isometric, or static contraction occurs, which activates when the body comes to a halt Howard L,(2004). Concentric contraction occurs when the muscle shortens to produce force, which results in the acceleration of the limb segments and/or body McClellan T.(2005).

Vertical jump performance is determined by five factors, the strength of the muscles of the lower body, the rate at which the muscles can develop force, and the speed of muscles that can contract and still preserve power output, the ability to utilize the stretch-shortening

cycle to maximize the jump height, and finally the degree of coordination and skill in performing the movements Holcomb W,et al (1996).

Training Benefits of Plyometric Exercises

The latent and speculative training benefits of plyometric exercises for the superior and inferior

extremities contain, but are not restricted to the following concepts: capacity to boost average power and speed; improved peak force and speed of acceleration; increased time for force improvement; energy storeroom in the SEC; the skill for heightened levels of muscle activation; and the skill to stir up stretch reflexes (Saez de Villarreal E, et al, 2010).

Via desensitizing the GTO,(the Golgi tendon organ) plyometric exercises permit muscles to produce force by having the musculoskeletal system endure enlarged workloads without the GTO firing. Plyometrics raise neuromuscular harmonization by training the nervous system and making movements more automatic during activity (training effect). This is recognized as reinforcing a motor pattern and creating automation of activity, which developes neural efficiency and increases neuromuscular performance. The raise in performance frequently occurs lacking a concomitant raise in morphological changes within the muscle (Ellenbecker TS, and Davies GJ,2011). This training result of the neural system predominates in the first six to eight weeks of any training program, and then following several additional weeks, hypertrophic changes of the muscles begin to occur (Moritani T,and DeVries HA,1979).

Plyometric Training Progression

Plyometric training program contains many components. One important component is the progression in the training program. If you think of progression with plyometric exercise you must consider volume, recovery, intensity, and detraining. These progressions are all interrelated, the higher the intensity, the lower the volume, the longer rest period, Baechle T, & Earle R, (2000).

In plyometrics, intensity is controlled by the type of exercise being performed, where as in weight training it is the amount of weight lifted McClellan T.(2005).

Intensity is also dependent on the rate of the stretch shortening cycle (movement from eccentric to concentric contractions, Beal DP.(1998). Plyometric exercises range from simple tasks like hip-twist ankle hops to highly complex and stressful exercises such as depth jumps, Chu D.(1998). These plyometric exercises are classified by the degrees of intensity that are used Beal DP.(1998).

Volume is the number of foot contacts or distance that the player perform. The number of foot contacts will depend on the intensity of the exercises, skill level, body weight, and time of year (offseason, pre-season, and in-season) Beal DP.(1998). A plyometric exercise program will have a higher volume of jumps when starting out at a low intensity level, Beal DP.(1998). As the athlete progresses and increases the intensity in the exercise program, the volume of specific jumps will decrease,) Beal DP.(1998).

Conclusion

All performance programs should include ply ometric training to enhance neuromuscular efficiency and prevent injury. The human movement system responds to the imposed demands of training. Another importance of physical activity and participating in organized sports for children and adolescents is evident and clear for everyone. It is recommended that children and adolescents to be engaged in different training modalities such as resistance, plyometric and even combined training in order to achieve good physical fitness as well as optimized performance. Safety regulations and precautions should be considered during these training programs. Participating in combined resistance and plyometric training would be more efficient especially for children and adolescents to perform jumping tasks in volleyball. More research is needed to evaluate effect size of different training modalities as well as other effective training programs for other physical fitness parameters in other sports.

References.

1.Hand book of Mini volleyball FIVB. Modified and expanded version of the Newest Soft Volleyball Handbook Published in Japan; 2008. .

2. Chimera N, e al, Effects of plyometric training on muscle-activation strategies and performance in female athletes. J Athl Train.2004;39(1):24-31. 17.

3. Chu DA. Jumping Into Plyometrics. Champaign, Il; Human Kinetics, 1998.

4. Lehnert et al., (2009), (Jalak, 2008), The effect of plyometric training program on young volleyball players in their usual training period (PDF Download Available). Available from: https://www.researchgate.net/publication/268270317_The_effect_of_plyometric_training_program_on_young_volleyball_players_in_their_usual_training_period [accessed May 2, 2017] .

5. Holcomb W,Kleiner D, Chu D. (1998). Plyometrics: Considerations for safe and effective training. J Strength Conditioning.;36-39.

6. Saez de Villarreal E, Requena B, Newton RU. Does plyometric training improve strength performance? A meta-analysis. J Sci Med Sport. 2010;13(5):513-522.

7. Potteriger JA, Lockwood R, Haub M, Dolezal B, Almuzaini K, Schroeder J, Zebas C. Muscle power and fiber characteristics following 8 weeks of plyometric training. J Strength Conditioning. 1999;13(3):275-279.

8. Faigenbaum A, Chu D. Plyometric training for children and adolescents. American College of Sports Medicine. 2001.

9. McClellan T. Big jumps. Training and Conditioning. March 2005; 42-46.

10. Howard L. Plyometric concepts reinvent lower extremity rehabilitation. Biomech. September 2004.

11.Holcomb W, Lander J, Rodney R, Wilson G. The effectiveness of a modified plyometric program on power and the vertical jump. J Strength Conditioning. 1996;10(2):89-92.

12. Hedrick A, Anderson J. The Vertical Jump: A review of the literature and a team case study. J Strength Conditioning. 1996;7-12.

13. Powers M. Vertical jump training for volleyball. J Strength Conditioning. 1996;18-23.

14. Kroon S. Vertical jump ability of elite volleyball players compared to elite athletes in other team sports. Faccioni, Speed and Conditioning Consultancy. April 2001.Available at www.faccioni.com/Reviews/VJperformance.htm 99

15. Faigenbaum A. Are plyometrics safe for children? J Strength Conditioning. 2000;22(3):45-46.

16. Beal DP. The use of the VERTEC in power jump training. American Fitness Quarterly. 1988.7(3):56-57;59-60;62.

17. . Baechle T, Earle R. Essentials of Strength Training and Conditioning. National Strength and Conditioning Association: Human Kinetics. 2000.

18. Ellenbecker TS, Davies GJ. Proprioception and Neuromuscular Control. In: Andrews J, Harrelson G, Wilk K, eds. Physical Rehabilitation of the Injured Athlete. 3rd ed. Philadelphia, PA: WB Saunders; 2011.

19. Moritani T, deVries HA. Neural factors versus hypertrophy in the time course of muscle strength gain. Am J Phys Med. 1979;58(3):115-130.

20. Wilt F. Plyometrics: What it is and how it works. Athl J. 1975;55 (5):89-90.

21. Verkhoshanski Y. Perspectives in the improvement of speed-strength preparation of jumpers. Yessis Rev of Soviet Phys Ed Sports. 1969;4:28-34.

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Service Delivery And Customer Satisfaction On Health Clubs In The Case Of Bahir Dar City

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Abstract
The purpose of the study was to investigate service delivery and customer satisfaction in health clubs at Bahir Dar city. The data was collected through questionnaire; interview and observation tools from the list of sampling frame, a total of 279 respondents participated as the source of data by using purposive sampling methods. The design of the study was convergent parallel mixed research design .The data collected were organized, analyzed and interpreted by using descriptive statics and used inferential statics like correlation, t-test and regression. The findings indicated that from the descriptive statistics analysis of services delivery, 57.7% of the respondents were poor perception towards services delivery but 42.3% were good perception towards services delivery in the health clubs. The t-test result shown that the satisfaction level of the respondents' was negative i.e. (-0.81646), this implies that the customers are not satisfied for the services that provided by the health clubs. Related to correlation analysis a strong positive correlation was found between services delivery and customer satisfaction because their correlation was 0.65. The main finding indicates that service delivery of the health club influence the satisfaction level of customer. The multiple regression result indicated that services delivery and customer expectation has 42% affect on satisfaction of customers. The remained 58% of customer satisfaction was due to other variables. Hence, the result indicated that services delivery (β= 0.529 with $p<0.05$) has a positive and significant effect on customer satisfaction and it is accepted, but customer expectation has a positive but not significant (β= 0.094 with $p<0.05$) effect on customer satisfaction. Hence, it is rejected. This implies that services delivery can significantly matter for customer satisfaction. Thus, it was recommended that there should be minimum standards for health clubs and set clear monitoring procedures by customers against the set standards, Sport expert, sport federation, trade and services quality evaluators should be follow-up, control and evaluate, the services provided by the health club, Health clubs need to have skilled persons specially medical persons as one of the standards to ensure that the customers have been using the clubs as per their prescribed health recommendations by physicians, create enabling situations for health clubs by government to compete and share experiences among each other to improve their service quality and also to encourage customers utilization of such services.**Key Words:** Services delivery, Customer Satisfaction and Health Clubs

Background of the study
An enduring and essential element of sport program is an emphasis on providing high quality services delivery and high impact programs to customers. During the service delivery process, customers measure service satisfaction and assess overall service quality by comparing their expectations with their perceptions (Coye, 2004:68). Customer satisfaction refers to the customers' perception of the performance of the service weighed against their expectations of the service performance (Schiffman & Kanuk, 2007:9). When the service performance exceeds the customers' expectations, the service is perceived as an exceptional quality service and customers are satisfied, but when the service expectations are not met, the service quality is viewed as unacceptable (Fitzsimmons & Fitzsimmons, 2008:108).

Customer satisfaction with health clubs will influenced by customer perceptions of service quality, for example the availability and condition of equipment and the responsiveness of staff, but will also include perceptions of the product quality for instance, the membership price, personal factors such as the customer's emotional state as well as uncontrollable situational factors, such as weather conditions and experiences driving to and from the fitness facility (Wilson et al., 2006:78). On the other hand, customer satisfaction will be affected by many things (other than the service attributes), which are out of the control of the service providers, such as the weather, and parking availability. If a customer experiences satisfaction repeatedly from a sport service, this can lead to a belief that the service is of a high quality. In addition, as service quality increases, satisfaction also tends to increase. In fact, satisfaction can be affected by a customer's perceptions of service quality. Even though satisfaction and quality are two different ideas, they influence each other.

Statement of the Problem

Provision of excellent service quality in order to receive high customer satisfaction is a vital issue as well as a challenge facing the contemporary service industry. It is for this reason that this issue has become of great importance for both academics and practitioners in the subject area of marketing. According to Zeithaml, Bitner and Gremler (2006), if an organization does not do market research on the topic of customer expectations, it may fail in providing customer requirements. While research has been conducted on general aspects of quality service delivery in various industries, there appears to be no significant study on how customer service quality impacts on commercial health and fitness centers. Besides this, the current researcher asserts in her preliminary study that there are problems of services delivery in some health clubs. For instance, lack of facilities and equipments, even the existing equipments are outdated equipment that cannot fit with these days technology; they are also inadequate. Some of the personal trainers are not well trained as the researcher tried to see in her study. Finally, particularly in fitness centers, the price for the service does not consider the real economic status of the customers. However, the researcher did not get a piece of information regarding services delivery and satisfaction of customers in health clubs in general. It is for this reason that the current researcher attempts to study the issue at Bahir Dar City. The researcher believes that studying service delivery and customer satisfaction in health clubs at Bahir Dar city was describe the existing problems and recommend best way of services delivery and customer care based on the result in this specific research setting.

Objectives of the Study

The general objective of the study was to investigate service delivery and customer satisfaction in health clubs at Bahir Dar city. Specifically, the study intends to:

Know the relationship between service delivery and customers' satisfaction in health clubs;

Examine to what extent that customers are satisfied with the provided services in health clubs

Asses the major factors affecting customers' satisfaction in health clubs ;

Describe what perceptions customers have towards service delivery in health clubs;

Research Questions

This study seeks to answer the following basic research questions:

Is there significant relationship between service delivery and customers' satisfaction in health clubs?

To what extent are customers satisfied with the provided services in health clubs?

Which factors are more significantly affecting the satisfaction of customers in health clubs?

What perceptions do customers have towards service delivery on health clubs?

Research Methods

This study was utilized by mixed methods research design. In doing so, the study used both quantitative and qualitative approaches which in combination provide a better understanding of research problems. Specifically the researcher was utilized convergent parallel design, because the purpose of convergent parallel mixed methods design is to simultaneously collect and analysis both quantitative and qualitative data use the result to understand research problem (Creswell & Plano Clark, 2011).

Sample and Sampling Techniques

The sampling techniques used for the study was based on purposive sampling. The study areas focused on seven health clubs that were found in Bahir Dar city. The researchers were taken seven health clubs by using purposive sampling techniques which have facilities and service delivery backgrounds. Therefore, in order to collected a wide range of information for the study the participants were customers, managers and personal trainers were included. (Yamane, 1967:88) sample size determination formula was employed. In this regard from the total population of 920 the researcher was taken 279 from these 265 customers, 7 personal trainers, and 7 health club managers. Accordingly 25 customers have taken from Girma fitness center, 24 customers have taken from Bahir Dar fitness centers, 20 customers have taken from homeland fitness centers, and 20 customers have taken from YMCA, 92 customers have taken from Wassie gymnasium, 47 have taken from BM body building, and 37 have taken from Sami gymnasiums, those customers were used services more than 6 months and also 7 health clubs managers and 7 personal trainers were selected by using purposive sampling techniques.

Data Collection Instrument

The researchers have employed by adapting SRVQUAL services quality model questionnaires for the members who enjoy and get services in the health clubs. The instrument was used to assess the members' expectations and perceptions of service quality according to the five quality dimensions and also to determine customer satisfaction. Parasuraman *et al.* (1988) classify the concept of SERVQUAL into 22 recognizable items. These items comprise five dimensions: Tangibles (physical facilities, equipment, staff appearance and so on); Reliability (dependable performance of duty); Responsiveness (responding to members' needs promptly); Assurance (inspiring confidence and trust); and Empathy (caring for members' on an interpersonal level). In order to answer customer satisfaction questions the researcher has adapted 5-point scales developed by Hoffman *et al.* (2009:373): Very dissatisfied, dissatisfied, Neutral, satisfied, Very satisfied. Accordingly, all questionnaires were distributed to 15 respondents. The overall reliability score was 0.853. This finding indicates that a high degree of acceptable scoring for the different categories for this research. Therefore, the result implies that the research instrument had internal consistency and dependability.

Data Analysis Method

Therefore in quantitative analysis technique, descriptive statistics like percentage and frequency used for questionnaires related to services delivery and customer satisfaction. On the other hand the researchers have used inferential statistics like; one sample t-test was used in order to know satisfaction level. Because examine the significance difference between customer perception and expectation value. Correlation(r) has applied to seen the relationship between services delivery and customer satisfaction. Multiple regressions(R) have applied in order to identify factors significantly affecting customers' satisfaction. Qualitative data such as interviews and observational checklists was putted as a statement on the research findings have analyzed, categorized and triangulated quantitative findings

Result and Discussion

Table1: The Perception of Customers towards Service Delivery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	very poor	25	9.4	9.4	9.4
	Poor	128	48.3	48.3	57.7
	Good	93	35.1	35.1	92.8
	very good	19	7.2	7.2	100.0
	Total	265	100.0	100.0	

With regard to the perceptions of customers towards service delivery in the health clubs were 7.2 % of the respondents were very good, 35.1% of the respondents were good, 48.3% of the respondents were poor, and 9.4% of the respondents were very poor. This indicated that 57.7% of the respondents were poor perception towards services delivery this implies that it needs improvement of services that provide by the health clubs.According to the researchers observation on the work field with regarded to over all services delivery, that means; availability of sport facilities, the educational level of the personal trainers, the experienced of the health club managers, services delivery strategies and customer care strategies were not satisfied. These also influence the satisfaction level of the customers. Even if the health club members or customers cannot be used the available sport equipments and facilities efficiently and effectively. And also the researcher observed that insufficient space within the health clubs; some health clubs have no skilled personal trainer, no dressing room and unclean toilet and shower. Under this condition it was difficult to provide quality services delivery and satisfy the customers need.

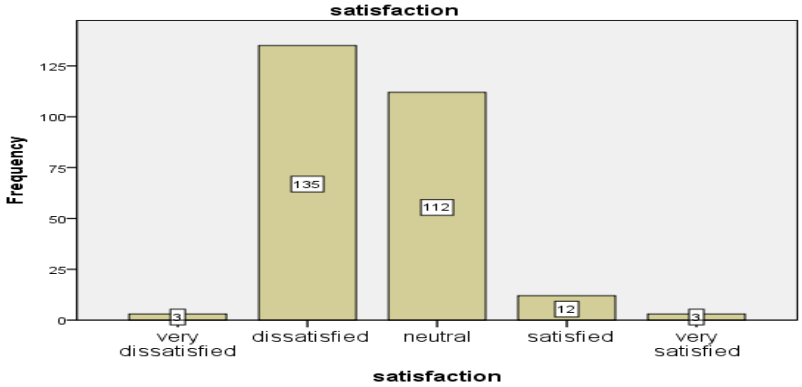

Figure 1: Satisfaction levels of the respondents

Figure 1, illustrates that 1.1 % (3) of the respondents indicated that they are very dissatisfied with the health clubs services, 50.9 % (135) of the members showed they are dissatisfied with the health clubs, and 42.3 % (112) of the respondents showed that they are neutral, 4.5 %(12) of the respondents stated they are satisfied, with the balance of 1.1% (3) of the respondents indicating they are very satisfied.This finding indicated that more than 94% of the respondents' were dissatisfied for services that provided by the health clubs, because as shown in the above table 4.9 only 5.6% of the respondents were satisfied for the provided services in the health clubs. Environment and staff factors were the most influencer to reduce the satisfaction level of the respondents as compare to other factors. Dissatisfaction occurred when the actual service was below the expected level.

Table 2: One- sample T-test Satisfaction Level of the Respondents

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Expectation	265	3.6250	.46813	.02876
Perception	265	2.8086	.59639	.03664

One-Sample Test

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Expectation	126.058	264	.000	3.62504	3.5684	3.6817
Perception	76.661	264	.000	2.80858	2.7364	2.8807

Mean of Perception – Mean of Expectation = satisfaction level of the respondents

= 2.80858 – 3.62504

= - 0.81646

The above result shown that the satisfaction level of the respondents' was negative i.e. (-0.81646), which is statically significant with 95% confidence interval and this implies that the customers are not satisfied for the services that provided by the health clubs. In addition to this customer satisfaction with health clubs is influenced by customer perceptions. This resulted in a negative gap score (Perception – Expectation). This result supported by Kotler and Keller (2006) suggest that customer satisfaction is influenced by specific service or product features and perceptions of quality.

The Relationship between Services Delivery and Customer Satisfaction

Correlation analysis is used to measure strength of the association (linear relationship) between two variables. A correlation analysis was performed in order to summarize the strength of the relationship between variables to determine how services delivery will influence customer satisfaction, as this will answer the first objective for the study. In this study, Pearson's Product Moment Correlation Coefficient was used to determine whether there is significant relationship between each independent and dependent variable. A correlation score of -1.00 means that there is a perfect negative association between the two variables while a correlation score of 1.00 means there is a perfect positive association between the two variables, above 0.7 means there is a very strong positive relationship between the two variables, 0.4-0.69 means there is strong positive relationship between the two variables and a correlation score of 0.00 means that there is no relationship between the two variables

Table 3: Pearson Correlation Coefficients between Services Delivery and Customer Satisfaction

Correlations		Service Delivery	Satisfaction
Service Delivery	Pearson Correlation	1	.645**
	Sig. (2-tailed)		.000
	N	265	265
Satisfaction	Pearson Correlation	.645**	1
	Sig. (2-tailed)	.000	
	N	265	265

**. Correlation is significant at the 0.01 level (2-tailed)

Note. Pearson's Correlation Coefficient test; all correlations are significant at the .01 level. Table 3 displays the p-values and correlation coefficients obtained from the correlation analysis. The result indicates that there was statistically significant and had strong positive relationship between service delivery and satisfaction (4=0.645) with 0.01 level of significance. This is true as the result of correlation

value indicated; i.e. the relationship between services delivery and customer satisfaction was 0.65. So, it was a strong positive relationship between variables. This means that when there is improvement of services quality by health clubs, the satisfaction level of customers have also increased positively.
In general the predictor variables (Expectation and Service delivery) together explained 42% of the variance in customer satisfaction ($R=0.65$, $R^2=0.42$, Adjusted $R^2=0.42$). The rest around 58% of customer satisfaction was due to other variables.

Conclusion

The researchers have been concluded that:
Descriptive statistics analysis of services delivery of the health clubs indicated that 57.7% of the respondents were poor perception towards services delivery but 42.3% were good perception towards services delivery in the health clubs. This shown that the services delivery situations were still needs improvement.In general customers have less satisfied by the services of the health clubs, which is below 50% that means more than 94% of the respondents' were dissatisfied for services that provided by the health clubs, because as shown in the above table 4.9 only 5.6% of the respondents were satisfied for the provided services, environment and staff were the major factor to influence the satisfaction level of the customers. The correlation analysis indicated that services delivery have a strong positive association with customer satisfaction. The other point was service delivery and customer satisfaction has direct relationship i.e. if service delivery increases customer satisfaction also increases and vice versa.
The t-test result revealed that the satisfaction level of the respondents' was negative i.e. (-0.81646) this implies that the customers are not satisfied for the services that provided by the health clubs and statistically significance with 95% of significant level. The result indicated that there were factors that affecting customer satisfaction during the services delivery process i.e. monthly fee (23.1%) is highly contributed to customers satisfaction, followed by facility factors (15.9%), environment(8.6%) and ,staff factor/7.6%/.On the other hand, none of the factors satisfied at least 50% of customers satisfactions. Therefore, customers are using health clubs with very minimal satisfaction and with full of dissatisfaction.
The ratio analysis end result was 1:77 between the number of customers and the number of personal trainer in the health clubs. This indicated that un-proportional number of personal trainer and health club members.The multiple regression result indicated that the two parameters such as services delivery and customer expectation determine the satisfaction of customers by 42%. This implies that services delivery and customer expectation can significantly matter for customer satisfaction.

Recommendation

Based on the conclusions derived from the findings, the following recommendations were made as follows.There should be minimum standards for health clubs and set clear monitoring procedures by customers against the set standards.The fitness centers should full fill the necessary facilities and equipments by giving more attention with respect to the impact they have on customers need.Sport expert, sport federation, trade and services quality evaluators should be follow-up, control and evaluate, the services provided by the health club.Health clubs need to have skilled persons especially medical persons as one of the standards to ensure that the customers have been using the clubs as per their prescribed health recommendations by physicians.Create enabling situations for health clubs by government to compete and share experiences among each other to improve their service quality and also to encourage customers' utilization of such services.In general the community based physical fitness program, youth and sports, urban development, social affair and other governmental and non-governmental organizations, should establish health clubs for the public to increases the participation and the satisfaction of customers.

Reference

Coye, R.W. (2004). Managing customer expectations in the service encounter. *International Journal of service industry management*. Vol.15, No.1, pp. 54-71.

Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed methods research(2nd ed.). *Thousand Oaks*, CA:

Fitzsimmons, J.A. and Fitzsimmons, M.J. (2008). Service management: Operations, strategy, information technology. 5th edition. Singapore. McGraw-Hill.

Hoffman, K.D., Bateson, J.E.G.wood, E.H. & Kenyon, A.J.2009. Services marketing: concepts, Strategies and Cases. London: *South- Western Cengage learning*.

Kotler, P.& Keller, K. (2006). Marketing management. 12th ed. Upper saddle Rvier, New Jersey: *Pearson Education Inc*. 729 P.

Parsuraman, A., zeithaml, V. A., & Berry, L.L. (1988). SERVQUAL: A multi- item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64 (1), 12-40.

Schiffman, L.G. &Kanuk, LL.(2001). Consumer behavior.9th ed. Upper Saddle River, *New Jersey: Prentice Hall*.561 P.

Wilson, A., Zeithaml, V.A., Bitner, M.J. &Gremler, D.D.2006. Services marketing: Integrating customer focus across the firm. Berkshire. *McGraw-Hill Education* (Ltd).623 p.

Yamane, Taro. 1967. Statistics, As Introductory, 2nd Ed., Newyork; *Harper and Row*.

Zeithaml, V.A., Bitner, M.J. and gremler; d.D. (2006). Services marketing: Integrating customer Focus across the firm. 4th edition. New York: *McGraw-Hill*.

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Measuring Inclination And Attitudes Of University Lecturers Towards Sport Activity based On Job Position & Subject Discipline

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Abstract:
The main objective of the study was to measure inclinations and attitudes of the university lecturers in Kelaniya University toward sports activities. The aims were to identify sport activity participation variations of selected lecturers out of four faculties & how to influence their subject discipline to participate sport activity. This study seeks to examine the differences in the attitude of university lecturers towards physical activity between the job position & subject discipline. This measure contained 23 open questions directed by the researcher at the university lecturers, and 240 questionnaires were hand-delivered to those lecturers who were included in the sample group. The validity of the questionnaire was determined by the reliability analysis and its reliability was at a good level. The cronbach's alpha point was .740. The chi-square was used mainly for data analyse. The chi-Square cross tab method was used to identify the university lecturers Inclination and attitudes towards sport activity with their job position and subject discipline. In conclusion, the lecturers' attitude & inclination changed with their job position & subject discipline, most of the science lecturers were inclined and had a good attitude towards sport activity. Other faculty lecturers were not involved in sports than science faculty lecturers. But there are lots of lecturers who had done sports previously, but presently they are not active participants in any sports activity. Family responsibility, time, less opportunity are the identified as the main reasons for the lecturers in giving-up sport activity.
Keywords:Inclination, Attitude, Job position, Subject discipline, Sport Activity

Introduction

Attitude has always been a subject of interest to many researchers as well as psychologist. It is considered as exciting and mysterious to some researcher. It can function as a shield to someone or it can even function as a weapon to someone. Having a certain attitude in life is crucial to people so as to help them live in harmony and towards better understanding of things around them. Attitudes play a major part in determining a person's personality.

Inclination is a state of mind. The definition of inclination is "A characteristic disposition to do, prefer, or favor one thing rather than another; a propensity:" "I shall indulge the inclination so natural in old men, to be talking of themselves" (Happer, 2010)

Health is a dynamic process that is constantly changing throughout life. Modern society is characterized by a lack of sport activity. From our advanced technology, people not spend their time for sport activities and they work as slowly being replaced by machines. This situation also has a significant impact on the general human health status (Durakovic, j & Misigo, 1999) The World Health Organization and many experts and the World Health Organization recommend regular, daily exercise to compensate for the reduction in physical work with the aim to preserve and improve both psychological and physical abilities. Life-long habits learnt in childhood are often reflected in one's health status during adulthood, commonly appearing as the initial risk factors of many diseases (Tirodimos et al., 2009).It is therefore important to promptly begin tracking the habits and health statuses of such people.

Some of the interest in this research area has derived from the notion that if one shows positive attitude toward physical activity, sports, and exercise the individual would be inclined toward participating in active physical type program throughout one's lifetime. Physical educators, teachers, doctors and many others have always attempted to inform the public of the benefits of regular exercise. It is believed that through participation in physical activities and sports, individuals gain in social skills, develop desirable attitude toward physical activities and develop worthy values (Miranda, 1977).

A number of factors influence the way in which sport and physical activity impacts on health in different populations. Sport and physical activity in itself may not directly lead to benefits but, in combination with other factors, can promote healthy lifestyles. There is evidence to suggest that changes in the environment can have a significant impact on opportunities for participation and in addition, the conditions under which the activity is taking place can heavily impact on health outcomes.

This study is carrying out among university lecturers at University of kelaniya, who were engaged in sport activity and were taking sport activities as a recreation. The study is aim to Measuring inclination and attitudes of university lecturers towards sport activities. The study discuss relationship between Attitude and Job position, relationship between Inclination and Job position, relationship between Attitude and Subject discipline, relationship between Inclination and Subject discipline.

Methods

A quantitative approach was used for this research.The population is this study was 240 (120-Male & 120-Female) internal lecturers fromScience, Social Sciences, Humanities, and Commerce & Management Facultiesin University of Kelaniya.240 questionnaires are hand-delivered to those lecturers who are including the sample group. Type of job positions areProfessors & Senior lecturers l, Senior lecturers ll, Lecturer, Probationer lecturers from Science, Social Sciences, Humanities, Commerce & Management Faculties in University of Kelaniya.The data collected from questionnaire. 23 questions ask from target group. Use modified version of Kenyon, ten liker scale, closed-ended format, Open scale and Self-Administrative questionnaires. Data analyzing from numerical analyze method SPSS Version21, Descriptive statistic analyze. Mainly used chi-Square,cramer's V,cross tabulation technique to analyst data.Data is Presentation from Chart, Figure & Tables.

Result and Discussion

Descriptive Statistics of Demographic factor and Sport Participation Factors

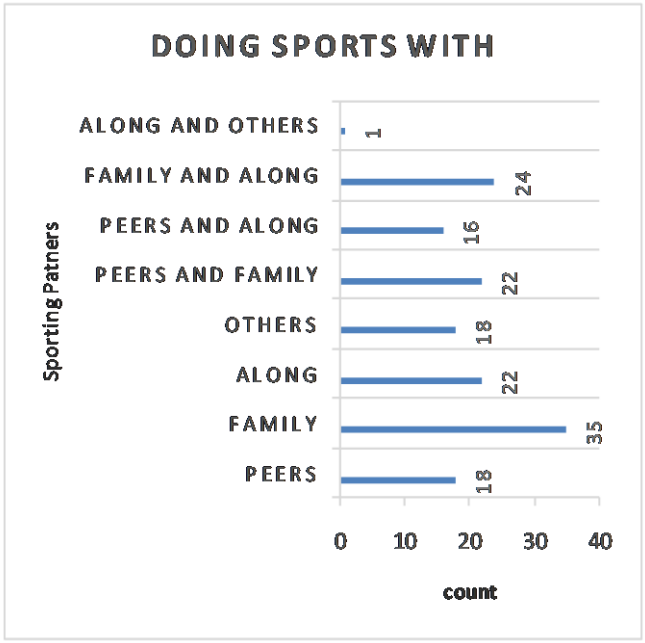
120 male and female lecturers responded to study. Out of 240 lectures 57 (23.8%) are never done sport. 183 (76.3%) lecturer ever done sports but only 156 lecturers still involving sport activity and it is 65% percent of the sample population, 84 lectures are not involving sport activity and it is 35% percent of the sample population. It's seems some people give-up sport after became a lecturer. The identified reasons for that are Family responsibility, Time and less Opportunity.

According to this research 28 participant Daily involving with sport activity and it is 17.9% percent of the sample population, 60 participant weekly doing sports and it is 38.5% percent of the sample population, 37 participant Monthly participate sport activity and it is 23.7% percent of the sample population, there is 31 participantparticipate in sport activity as their thoughts and it is 19.9% percent of the sample population.

According to place of participation 23 (9.6%)participantdoing sport activities in university, 26 (10.8%) in public place, 40 (16.7%) in privet place, 26 (10.8%) in other place, 26 (10.8%) in university & privet place, 10 (4.2%) in university & public place, 5 (2.1%) in university & other place. Only 156 participant response to this sectionand missed 84.

According to the following table (table 1) 18 (7.5%) participant doing sport activity with peers. 35 (14.6%) with family, 22 (9.2%) participant people doing sport activity with along, 18 (7.5%) with other.This table shows most of lecturers prefer to do sports with their family and also some of them more likely to do sports only with them self.

Table 1. Distribution of sporting partners



Source: Conducted by Researcher

Testing of Hypotheses and Analysis

For this study tested four hypothesis

H1- There is a significant relationship between attitude and Job position

H2- There is a significant relationship between Inclination and Job position

H3- There is a significant relationship between Attitude and Subject Discipline

H4- There is a significant relationship between Inclination and Subject Discipline

According to the Cross tabulation and Chi-Square tests all hypotheses are accepted. Above analysis proved that there are significant relationship between attitude and Job position, inclination and Job position, attitude and subject discipline, inclination and subject discipline.

When we talking about relationship between attitude and Job position, professors and probationary lectures have good attitude about sports than other lectures.Reason for this can be probationer lectures are young and they are actively involve with physical works.Then they can have good attitude towards sports.In professor stage they have already achieved their academic targets and now they want to be physically fit with their ages then they are involve in sports.

According to cross tabulation result there is a relationship between inclination and Job position,4.6% percentage of professors have highly poor inclinations to do sport activity, but in other positions lectures highly poor inclinations percentage were less than one.

When talking about relationships between inclination & subject discipline and attitudes & subject discipline, there is no any lecturer from science faculty who don't have inclination to do sports. Most of Science faculty Lecturers have agreed attitude to do sport activity and it Percentage is 11.3% out of 31.7%. Followed by commerce & Management (9.2%), Social sciences (6.7%) and Humanities (4.6%).When compare to other faculties Faculty of humanities' lectures have no good attitude or inclination towards sports. It would be they have lot of extra-curricular activities and entertainment events with their faculty. Then they can organized their free time for arts related recreational habits and entertainments.

Conclusion

When it comes to conclusions with the consideration of findings it can be said that the University lecturers don't have much inclination or attitudes towards Sport activity , the lecturers' attitude & inclination changed with their job position & subject discipline, most of Science lecturers inclined and have a good attitude toward sport activity. Other faculty lecturers are not involving sport than science faculty lecturers. But there are lot of lecturers did sport in previous, but they are not continuing it now. Family responsibility, Time, less Opportunity are the identified main reasons that lecturers give-up sport activity.

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Reference

Allport, G.W., 1967. Attitudes in attitude theory and measurement. New York: John Wiley and sons.

Amensisa, & Wondimagegn, , 2006. An Overview on Students' Attitudes towards A Physical Fitness TOWARDS & Sport Skill program. National monthly refereed journal Research in Arts & Education, 02(05), pp.1-11.

American Association of University Professors, 2003. Policy Statement: Contingent Appointments and the Academic Profession. Washington.

Amirah, A., 2011. Attitude Part 01. Persons Attitude & Belives, p.1.

Bailey, R., Wellard, I. & Dismore, H., 2005. physical activities and sports: benefits, patterns, influences and ways forward. World Health Organization Report. Centre for physical education and sport research.

Bartonova, K., 2007. attitudes of future Physical Educators towards teaching children with disabilities in Physical Education in South Africa. Disability and Social helth, 05(02), pp.352-57.

Bartonova, K.K.B., 2007. children's attitudes towards Physical Education. School Chidren & Helth , 03(04), pp.1-33.

baweo, W., 2015. The Health Benefits of Sport and Physical Activity. [Online] Available at: http://www.sportanddev.org/en/learnmore/sport_and_health/the_health_benefits_of_sport_and_physical_activity/ [Accessed 12 Octomber 2015].

BiBi , Fakhrosadati , , Rshadi & Rouhollah, E., 2013. Leisure Time Spending Way by the Students of. Middle-East Journal of Scientific Research, 14(10), pp.1252-56.

Bik , C., Siu-yin , C. & Judy , N., 2000. Enhancement of Sport Skill Learning. pp.49-58.

Carlson, T.B., 1995. University student alienation from physical education. pp.467-77.

Durakovic, j & Misigo, M., 1999. Evaluation of a university course to promote physical activity. Journal of Research Quarterly for Exercise, p.19.

Elzbieta , B. & Karol , R., 2009. Leisure activities of university college staff. Biomedical Human Kinetics, 01, pp.20-22.

Fishbein, M. & Ajzen, I., 2000. Belief, attitude, intention, and behavior: An introduction to theory and research. Wesley.

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Identifying the Gender Differences of International Tourists on Destination Satisfaction and Revisit Intention: Special Reference to Galle Tourism Zone

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Abstract
Tourists' behavior of destination preferences is highly effected by travel destination attributes and it is differ from several criteria such as education level, gender, age group. When advertence to the tourists' behavior studies, there is lack of studies focus on gender differences of destination satisfaction and revisit intention. Therefore this study examined the criteria that the difference behavior ofmale and female according to the destination satisfaction and revisit intention.For tourism planners and marketers to identify the difference behavior of male and female for the satisfaction and revisit intention in order to reduce the promotional cost of tourism industry, make gender based tourism strategies to develop and maintain the destination attributes. Sixteen travel destination attributes were derived from the literature review to measure the satisfaction of male and female. Number of 200 tourists were selected based onthe random sampling method from Galle tourism zone. Questionnaire method and structured interview method wereused to collect the dataand descriptive statistics, Chi Square analysis, Multiple Regression Analysis and One-way ANOVAwereused to analyze the primary data. The results revealed that, there was a significant difference between male and female on the overall satisfaction about the travel destination attributes where female were highly satisfied than males. Furthermore, destination attributes as landscape, goods and services, entertainment, shopping, accommodation, hospitality, accessibility, safety, relaxation, adventure and special events and activities showed a significant difference according to the gender. Results also revealed females were satisfied with landscape in Galle, goods and services provided by Galle, Shopping and Adventure experiences in Galle than males and males were satisfied with accessibility, hospitality, safety, and relaxation in Galle than females. According to the results, the determinants of male tourists revisit intention were landscape, relaxation, accommodation and culture & religious value of Galle and the determinants of female tourists revisit intention were food, accommodation, and accessibility of Galle. These results indicated that accommodation in Galle plays an important role in tourists revisit intention. **Keywords:**Gender Differences, Travel Destination Attributes, Tourists Satisfaction, Revisit Intention, Galle Tourism Zone

Introduction

In tourism industry, it is difficult to understand the behavior and the future purchasing intention of tourists; because it is vary with different outlooks based on tourists' attitudes (Som et al., 2012). According to the Palani&Sohrabi (2013), it is need to understand the person's action, background and characteristics to identify a person's attitude towards a specific matter. Therefore gender is one of the best methods to identify the difference behavior of tourists. Tourism scholars have studied the concept of gender difference in distinctways. Ryan,Henley and Soutar (1998),have investigated gender differences in tourism destination choices. Their study found that there is a difference between male and female attitudes towards holidays, as well as their preferences and perceptions of the holiday locations. Study also proved that females give higher importance to each and every destination attribute in comparison to males. According to the study one of the reasons, men and women may want different experiences from a tourism destination is that they are getting away from different things in the home environment. However,most gender based travel studies have focused on the female travelers. Women have become an important market segment in tourismindustry (Howell**,** Moreo&DeMicco, 1993). McCleary, Weaver and Lan (1994) found that the males and females have

different views on hotel selection and service use. Furthermore, study conducted by Rosmann (2006), focused on female travelers and denoted that women make globally 80% of the purchase decisions, in which of course everyday goods are included. The differences among men and women arise due to many reasons, such as psychological, cultural, environmental and social factors. Men differ from women with respect to e-WOM messages and shopping behaviors.

This study focused on the behavior of male and female international tourists in relation to the overall satisfaction derived through travel destination attributes and their revisit intention.

Satisfaction in tourism industry mainly effect the choice of destination and decision to return. And also it is a basic parameter which used to measure the performance of certain destination products and services. Therefore it can be consider as one of the most viable variables when analyzing tourists' behavior (Schofield, 2000). Among the tourists literature, many studies try to define tourists' satisfaction in different ways. Chi & Qu (2008), mentioned that satisfaction is a significant determinant of a repeat visit and overall satisfaction of travel experience is a major antecedent of revisit intention. Although, Hashemi et al., (2015) suggested that when tourists' holiday expectations are met or exceeded, they are more likely to return in the future. Chen and Chen (2010), claimed that tourists' satisfaction is depend on the gap between visitors' pre travel expectation and their post travel experiences at the same destination. Tourists' pre travel expectations are based on their past experiences, recommendation of friends/ family and information available for the tourists. (Chen & Chen, 2007). Furthermore, tourists' real experiences are formed by what they see, feel and achieve at the destination (Yoon &Uysal, 2005)

Satisfaction directly influences the consumer loyalty to a product or a service (Thiumsak&Ruangkanjanases, 2016). Satisfaction has a positive correlation with the post-purchase behavior, particularly in the process of repurchase in the future (Gunarathna et al., 2013b).According to the study of Baker and Crompton (2000) in tourism industry, the satisfaction mainly has an impact on tourist's revisit intention in the future. High positive satisfaction definitely leads to greater likelihood of revisit intentions (Baker & Crompton, 2000). Study conducted by Kozak and Rimmington (2000); Yoon and Uysal (2005) on tourists' satisfaction, they have concluded that satisfaction provides a ground for the formation of revisit intentions and for the creation of positive word of mouth which results in a recommendation to another.Furthermore,that revisit intention has been regarded as an extension of satisfaction rather than an initiator of revisit decision making process. To explain the tourists' revisit intention, Kozak (2001), pointed out that level of satisfaction plays most dominant role. Tourists' satisfaction is measures by destination researchers under the different terms as overall satisfaction, expectations, performance and positive recommendation. Also Yoon and Uysal (2005), claimed that there is a string relationship among the tourists' satisfaction, loyalty and revisit intention. Understanding the revisit intention is one of the dominant issue; because repeat visitors provide more revenue and minimize the costs (Pratminingsih, Rudatin&Rimenta, 2014). The concept of revisit intention comes from the behavioral intention (Som et al., 2012). Ajzen (2002), described this behavioral intention as intention of planning to perform a certain behavior. It interpret that when people have stronger intention to engage with the behavior, they are more likely to perform behavior.

Therefore this study mainly focused on gender role in destination satisfaction and revisit intention. Identify the gender based behavior of tourists on satisfaction and revisit intention, help tourists' planners and marketers to develop the gender based tourism strategies and activities. Si Lankan Tourism Development Authority bespoke new strategies to position Sri Lanka as a leading and one of the most attractive tourists' destinations in the world. However, as compared with other countries in the South East Asian Region, such as Singapore, Taiwan and Hong Kong, tourists' arrival rate in Sri Lanka represent very low weight[1]. Sri Lanka disburse lot of promotional costs to develop and maintain the quality of tourism industry and to attract more tourists to the island (CBSL, 2018). But, according to the UNWTO, Sri Lanka represent only a fraction of the world tourism at present[2]. Therefore in order to minimize this promotional cost, increase the quality of the industry and tourists' arrivals, tourism strategy makers should advertence to develop new strategies to increase the satisfaction and revisit intention of tourists. Because, repeat visitors minimize the promotional cost. Not only that but also, tourism planners need to concentrate about the gender differences when planning the tourism

[1] While Sri Lanka attracted 2 million tourists in 206, South East Asian region countries such as Singapore, Taiwan and Hong Kong have recorded more than 10 million tourists per year.

[2] Sri Lanka shares 0.13% of total tourists' arrivals and 0.2% of total tourists' earnings of the world.

development strategy marketing plans. Reason for this is, according to the literature review of this study, males and females have different choices and satisfaction levels for certain destinations. Therefore, it is important to identify the gender role in satisfaction of a certain destination attributes and revisit intention in order to maintain high tourists' arrivals, quality of Sri Lankan tourism industry and low promotional cost.

Methodology of the Study

The objective of this study was to identify the gender differences of international tourists in relation to destination satisfaction and revisit intention. To achieve this objective 200 samples of international tourists were selected from Galle tourism zone. Random sampling method was used to select the sample of the study from Galle tourism. Questionnaire method and structured interview method wereused for the data collection in order to identify the different level of satisfaction and revisit intention. This study also collected the data of visitors' pre travel expectations and post travel experiences to measure the level of satisfaction of travel destination attributes. The travel destination attributes were derived from the literature review and those destination attributes are landscape, cultural and religious value, entertainment, goods and services such as shopping, accommodation and food in Galle, transport, accessibility, hospitality, safety, relaxation, climate, price, adventure and special events and activities. There could be many other destination attributes that can influence the satisfaction of the tourists. It is transmute according to the different destinations and tourists behavior.

Data Analysis and Discussion

According to the results of the study the level of satisfaction gained by Male and Female tourists through each travel destination attribute, as shown in the table 1, male respondents were satisfied with landscape, accommodation, food, accessibility, hospitality, safety, relaxation, climate and price of Galle destination than female travelers. The results indicated that entertainment in Galle does not play an important role as a travel destination attribute and most of the male and female respondents were dissatisfied with the entertainment provided in Galle. According to the chi-square statistics, there is a significant difference of satisfaction between male and female about Galle landscape, goods and services, entertainment, shopping, accommodation, hospitality, accessibility, safety, relaxation, adventure and events. The study also revealed that there is no significant difference between male and female about the culture and religious value in Galle, foods, transport, climate and price.

Satisfaction level of transport and special events and activities among male and female tourists were evenly distributed. However, there is a significant gap between male satisfaction and female satisfaction with regards to shopping in Galle. Study conducted by Ryan, Henley, and Soutar(1998), claimed that males were more likely to agree that they like adventure than females. However in this study revealed that females were more satisfied with adventure activities in Galle than Males. The reason for this was that Galle is not considered as an adventure tourism destination in Sri Lanka thus adventurous activities in Galle is limited to boat and bike riding, private trolling fishing tours, hiking and cycling. Furthermore, One-Way ANOVA analysis revealed that there is a significant difference between males and female for the overall satisfaction about the travel destination attributes (Table 2), where males have high overall satisfaction than female

Table 1: Tourists Satisfaction with travel Destination Attributes according to the Gender

Variable	Satisfaction (%)		Pearson Chi-square (value)	Sig
	Male	Female		
Landscape	64	60	3.887	.049
Culture & Religious	68	75	4.220	.239
Entertainment	-	-	43.897	.000
Goods & Services	40	55	43.367	.000
Shopping	30	65	44.435	.000
Accommodation	40	38	20.979	.001
Food	50	30	17.194	.060
Transport	29	30	10.034	.230
Accessibility	48	30	10.501	.033
Hospitality	57	33	17.201	.002
Safety	59	36	21.029	.000
Relaxation	46	34	29.437	.000
Climate	51	30	10.751	.057
Price	32	24	11.862	.065
Adventure	13	18	21.534	.001
Special Events	13	13	28.648	.000

Source: Field Survey Data, 2017

Table 2: Destination Satisfaction with Gender t-test for Equality of Means

Variable	Levene's Test for Equality of Variances		t-test for Equality of Means	
Destination Satisfaction	F	Sig.	t	Sig. (2 tailed)
Equal variances assumed	.022	.884	4.946	.000
Equal variances not assumed			4.976	.000

Source: Field Survey Data, 2017

As mentioned in Table 3, the percentage of variability explained by the model is 75.2%. According to the results, the final fitted model is,

Revisit Intention = 0.127+ 0.514 Landscape+ 0.209 Accommodation + 0.298 Relaxation+ 0.205 Culture & Religious value

When advertence to the revisit intention among males and females, (Table 3)Multiple Regression analysis revealed that, the determinants of revisit intention among males were Landscape, Accommodation, Relaxation and Culture & Religious value in Galle. McKercher& Wong (2004), claimed that repeaters are less likely to be satisfied, but have strong intension to revisit. According to the satisfaction level, only 40% and 46% males were satisfied with accommodation and relaxation in Galle respectively. However, when analyzing the revisit intention, both travel destination attributes were influence in revisit intention among males.

Table 3: Revisit Intention of Males

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
4	(Constant)	.127	.592		-.215	.000	
	Landscape	.514	.062	.757	8.269	.000	
	Accommodation	.209	.056	.322	3.752	.000	
	Relaxation	.298	.075	-.355	-3.966	.000	
	Culture & Religious	.205	.082	.236	2.497	.015	.752

Source: Field Survey Data, 2017

When advertence to the female revisit behavior, it was difference from males. The attributes that influenced for revisit intention among females were accommodation, food and accessibility. As mentioned in Table 4, the percentage of variability explained by the model is 68.2%. According to the results, the final fitted model is,

Revisit Intention = 0.772+ 0.258 Accommodation+ 0.157 Food + 0.234 Accessibility

Table 4: Revisit Intention of Females

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square
		B	Std. Error	Beta			
3	(Constant)	.772	.490		1.577	.000	
	Accommodation	.258	.060	674	7.578	.000	
	Food	.157	.058	.304	3.412	.001	
	Accessibility	.234	.074	-.278	-3.174	.002	.682

Source: Field Survey Data, 2017

Accommodation in tourism industry is a vital factor of tourism development. Tourism is depend on the quality and quantity of accommodation facilities available. Therefore, to imagine a successful tourism development, the development of accommodation should be considered as a core factor of the tourism planning. Therefore, comfortable hotels and other forms accommodation facilities play a major role in attracting tourists to the destinations places (Saxena, 2008). This study also revealed that accommodation in Galle plays an important role in tourists' attraction, because both male and female tourists have revisit intention because of accommodation in Galle. Not only accommodation, but also landscape in Galle, accessibility, relaxation, culture & religious value and food in Galle also play an vital role in attract visitors and repeat visitors to the destination. This results claimed that males and females have different attitudes, behavior and choices of revisit.

Conclusion

This study found that there is a significant difference between male and female for the satisfaction about the travel destination attributes. Culture and religious value in Galle, foods, transport, climate and price does not indicate a difference in the level of satisfaction between male tourists and female tourists. Among the 16 travel destination attributes, 11 (Galle landscape, goods and services, entertainment, shopping, accommodation, hospitality, accessibility, safety, relaxation, adventure and events) attributes were have different satisfaction based on gender. When advertence to the overall satisfaction of travel destination attributes, the results revealed that the level of satisfaction gained in a destination differs based on gender. According to the results, the determinants of male tourists revisit intention were landscape, accommodation, relaxation and culture & religious value of Galle and the determinants of female tourists revisit intention were food, accommodation, and accessibility of Galle.

References

Ajzen, I. (2002). Perceived Behavioral Control, Self-efficacy, Locus of Control, and the Theory of Planned Behavior. Journal of Applied Social Psychology, 32, 665-683

Baker, D. A., & Crompton, J. L. (2000). Quality, Satisfaction and Behavioral Intentions. Annals of Tourism Research, 27 (3), 785-804.

Central Bank of Sri Lanka. (2018). Annual Report-2016, Retrieved from http://www.cbsl.gov.lk/annual_report/AR2016/English/content.htm

Chen, C. F., & Tsai, D. (2007). How Destination Image and Evaluative Factors Affect Behavioral Intentions, Tourism management, 28, 15-22.

Chen, C., & Chen, F. (2010). Experience Quality, Perceived Value, Satisfaction and Behavioral Intentions for Heritage Tourists. Tourism Management,31, 29-35.

Chi, C. G.Q., & Qu, H. (2008). Examining the Structural Relationships of Destination Image, Tourist Satisfaction and Destination Loyalty: An integrated approach. Tourism Management, 29, 624-636.

Gunarathna, K.M.L.M.M., NGA, J. L. H., & Chan, J. K. L. (2013a). Civil War and Pro-Poor Tourism: Special Reference to the Sri Lankan Experiences: Innovation & Optimization of Tourism Research: 820-829. ISBN 978-967-394-178-0 Malaysia

Gunarathna, K.M.L.M.M., NGA, J. L. H., &Chan, J. K. L. (2013b). Feasibility of Poverty Alleviation in Sri Lankan Rural Tourism as a Recreation Activity; International Journal of Education and Research, 2 (1): 1-10.ISSN 2201- 6333 Print & 2201-6740 Online. Australia.
Hashemi, S., Jusoh, J., Kiumatsi, S., &Mohammadi, S. (2015). Influencing Factors of Spa and Wellness Tourism on Revisit Intention: the Mediating Role of International Tourists Motivation and Tourists Satisfaction. International Journal of Research- Granthaalayah, 3 (7), 1–11.
Howell, R. A., Moreo, P. J., &DeMicco, F. J. (1993). A Qualitative Analysis of Hotel Services desired by Female Business Travelers. Journal of Travel and Tourism Marketing, 1 (4), 115-133.
Jang, C. S., & Feng, R. (2007). Temporal Destination Revisit Intention: The Effects of Novelty Seeking and Satisfaction, Tourism Management, 28, 580-590.
Kozak, M. (2001). Repeaters' Behavior at two Distinct Destinations. Annals of Tourism Research, 28 (3), 784-807.
Kozak, M., &Rimmington, M. (2000). Tourist Satisfaction with Mallorca, Spain, as an off-season Holiday Destination. Journal of Travel Research, 38 (3), 260-269.
McCleary, K., Weaver, P., &Lan, L. (1994). Gender-based Differences in Business Travelers' Lodging Preferences. The Cornell Hotel and Restaurant Administration Quarterly, 35, 51-58.
McKercher, B., & Wong, D. Y. Y. (2004). Understanding Tourism Behavior: Examining the Combined Effects of Prior Visitation History and Destination Status. Journal of Travel Research, 43 (2), 171-179.
Palani, S., &Sohrabi, S. (2013). Consumer Attitudes and Behavior when Choosing a Holiday Destination- Introducing Kurdistan to the Finnish traveler. Journal of Hospitality Management, 8 (1), 70.
Pratminingsih, S. A., Rudatin, C. L., &Rimenta, T. (2014). Roles of Motivation and Destination Image in Predicting Tourist Revisit Intention: A Case of Bandung – Indonesia. International Journal of Innovation. Management and Technology, 5 (1). Retrieved from http://doi.org/10.7763/IJIMT.2014.V5.479
Rosmann, N. (2006), She-Business. Frauen-Produktefür Power-Frauen. In:existenzielle(2), p. 26–29
Ryan, M., Henley, N. &Soutar, G. (1998). Gender differences in tourism destination choice: Implications for tourism marketers, Australian and New Zealand Marketing Conference, Dunedin, New Zealand. 2307-2317. Retrieved from http://ro.ecu.edu.au/smatl_pubs/13
Saxena, A. (2008). New Trends in Tourism and Hotel Industry. Journal of Marketing Studies, 25 (1), 1020-1045.
Schofield, P. (2000). Evaluating Castle Field Urban Heritage Park from the Consumer Perspective: Destination Attributes Importance, Visitor Perception and Satisfaction. Tourism Analysis, 5 (2-4), 183-189.
Som, A., Marzuki, A., Yousefi, M., &AbuKhalifeh. A. (2012). Factors Influencing Visitors' Revisit Behavioral Intentions : A Case Study of Sabah, Malaysia. International Journal of Marketing Studies, 4 (4). Retrieved from http://doi.org/10.5539/ijms.v4n4p39
Thiumsak, T., &Ruangkanjanases, A. (2016). Factors Influencing International Visitors to Revisit. Journal of Economics, Business and Management, 4(3).
Yoon, Y., Uysal, M. (2005). An Examination of the Effects of Motivation and Satisfaction on Destination Loyalty: A Structural Model. Tourism Management, 26 (1), 45-56.

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Effect Of Yoga On Selected Lipid Profile On Mild Intellectually Persons

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Abstract:
The Purpose of the study was to find out the effect of yoga on selected lipid profile of mild intellectually persons. For this purpose fifteen (N=15) mild intellectual students were selected from special school in Coimbatore and their age was ranged between 14 to 18 years. Twelve week of yoga training was given to the subjects. The lipid profile namely total cholesterol, Triglyceride, High density lipoprotein, Low density lipoprotein and very low density lipoprotein were selected as independent variables. The data were collected before and after twelve weeks of intervention. t– Ratio was used to find out the significant difference between pre and post test. It was concluded from the result that the12 weeks of yoga program was made significant improvement in lipid profile on mild intellectually persons.
Keywords: yoga, lipid profile and mild intellectual.

Introduction:

Intellectually challenged status is a generalized disorder appearing before adulthood, characterized by significantly improved cognitive functioning and deficit in two or more adaptive behaviors. It has historically being defined as an intelligence quotient score under 70. It is focused almost entirely on cognition of persons diagnosed as having significantly lower than average intelligence and considerable problem in adaptive to everybody life or lacking independence in regard to activities of daily living (Medical dictionary- 12-dec-1998).

Mild intellectually challenged persons Mild intellectual disability is generally defined as having below average IQ and poor adaptive behavior skills, evident before the age of 18. Their IQ level is 70-75. A person with mild intellectual disability learns more slowly than the other people. They may also have difficulty with date and time and expressing receptive communication.(Disability awareness kit produced by the state library of Victoria).

Yoga:Yoga helps to tone up the entire body to regularize blood compositions and improve blood circulations, tones up glands and visceral muscles. Robson states that “yoga develops flexibility and vital capacity”. Regular practice of yoga helps to keep our body fit, controls cholesterol level, reduces weight, normalizes blood pressure and improves heart performances. Further, preliminary studies in the United States and India suggest that yoga may be helpful for specific conditions, such as asthma, epilepsy, anxiety, stress and others. Regular exercise results in an increase in the blood flow and improves oxygen carrying and waste removal capacity and further increases work load capacity (Frank Vitale, 1973). Exercise increases the volume of hemoglobin and erythrocyte of the blood. Also blood vessels are seen to maintain elasticity and suppleness when stressed systematically probably by the beneficial effect of the heart

Purpose Of The Study

The purpose of the study was to find out the effect of yoga on selected lipid profile status on mild intellectually persons.

Methodology

To achieve the purpose of the study fifteen (N=15) male mild intellectually challenged persons selected from Special school in Coimbatore, their age was ranged between the 14 to 18 years of age. Twelve week of yoga training was given to the subjects. The lipid profile namely total cholesterol, Triglyceride, High density lipoprotein, Low density lipoprotein and very low density lipoprotein were selected as a independent variables. The data was collected before and after twelve weeks of training. T – Ratio was used to find out the significant difference between pre and post test.

Training program

During the training period, the subjects were underwent yoga training programmes. Duration of training session in all the days was between one hour to one and half hour approximately which included warming up and limbering down. All the subjects involved in this study were carefully monitored throughout the training programme to be away from injuries. They were questioned about their health status throughout the training programme. None of them reported any injuries or discomfort. However, muscle soreness appeared in the earlier period of the training programme and was reduced in due course.

Training Details of yogic practice:

Duration of the training : 12 Weeks
Number of days per week : 5 Days
Duration of the session : 90 Minutes

Training phases of yogic practice:

The yogic practices consist of three phases in a session.

Phase -- I -- Asanas
Phase – II -- Pranayama
Phase – III -- Meditation

Time schedule for a session:

Asanas -- 40 Minutes
Pranayamas -- 20 Minutes
Distributed Relaxation -- 15 Minutes
Meditation -- 15 Minutes

Analysis Of Data

The following table illustrate the statistical result of the lipid profile status of mild intellectually persons.

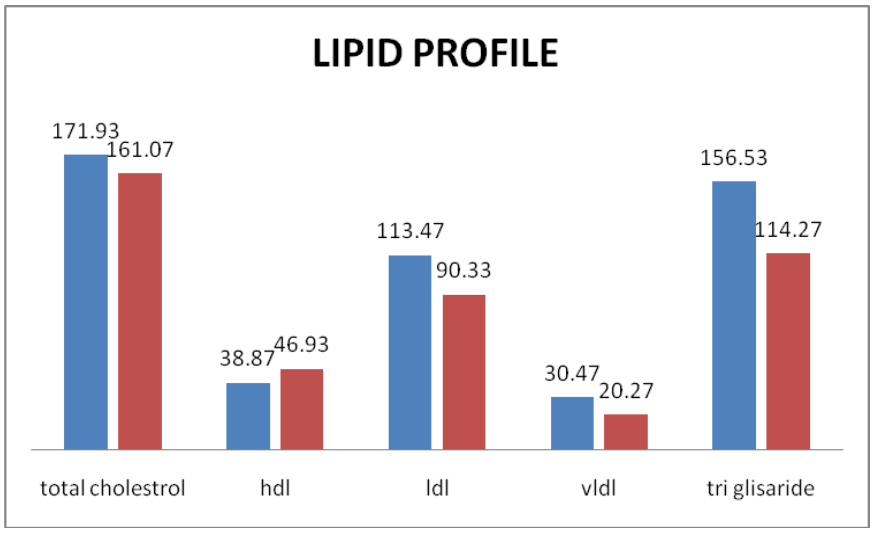
TABLE -1 :Computation Of T- Ratio Of Lipid Profile Status Of Mild Intellectually Persons

S.no	Variables	Test	Mean	S.D	T
1	Total cholesterol	Pre	171.93	29.78	2.31*
		Post	161.07	21.04	
2	High density lipoprotein	Pre	38.87	2.33	8.46*
		Post	46.93	4.53	
3	Low density lipoprotein	Pre	113.47	19.02	5.77*
		Post	90.33	14.17	
4	Very low density lipoprotein	Pre	30.47	12.99	4.69*
		Post	20.27	6.65	
5	Triglyceride	Pre	156.53	34.18	7.51*
		Post	114.27	17.90	

*Significant at 0.05 level of confidence

Table -1 it clearly shown that the Obtained‘t’ value of Total cholesterol 2.31, High Density Lipoprotein 8.46, Low Density Lipoprotein 5.77, Very Low Density Lipoprotein 4.69 and Triglyceride 7.51 are greater than the table ‘t’ value 2.14 at 0.05 level of confidence.

FIGURE- 1 :Bar Diagram Showing The Pre And Post Test Different In Lipid Profile On Intellectually Persons



Discussions On Finding

The result are found to be in good agreement with the earlier works done by the different researcher Rimmer, et. al (1995) done a research on the health characteristics and behaviors of adults with mental retardation residing in three living arrangements, Due to exercise the total cholesterol has significantly been reduced. Nash, et.al, (2001) analyzed on circuit resistance training improves the atheerogenic lipid profiles of persons with chronic paraplegia and concluded that high density cholesterol level significantly increases. Batajoo and Hazara. (2013) analysis of serum lipid profile in cholesterol patients. They concluded that VLDl cholesterol has significantly reduced.

Conclusion

It was concluded that the Total Cholesterol, Triglyceride, Low Density Lipoprotein and Very Low Density Lipoprotein were significantly decrease and High Density Lipoprotein significantly improved on mild intellectually persons due to yoga practices.

References

Nash MS, Jacobs PL, Mendez AJ, Goldberg RB (2001), Circuit Resistance training improves the Atherogenic Lipid profiles of persons with Chronic Paraplgia, Journal of Spinal Cord Med, Pp. 24(1):2

Rimmer JH, Yamaki K, Lowry BM, Wang E, Vogel LC.(2010) Investigated that obesity and obesity related secondary conditions in adolescents with intellectually/developmental disabilities. Journal of intellectually disabled res, Pp. 54(9);787-94.

Kosuri M, Sridhar GR(2009), Yoga practice in diabetes improves physical and psychological outcomes,*Metabolic Syndrome and Related Disorders,*Dec;7(6):515-7.

Pueschel SM, Craig WY, Haddow JE. (1992) Lipid and lipoprotein in persons with Down Syndrome. Journal of intellectually disabled res, Pp 36 (4):365-9

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Media Framing: A comparative content analysis of Rio Olympic Games 2016through Print Journalism in Sri Lanka

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Abstract
This study examined the relationship between media framing and its effects on the portrayal of sport events in the news. The content analysis was performed on articles pertaining to the Rio Olympics2016. Five articles from mass media which were generated public debate in the context of Sri Lanka were chosen because of their prominence and extensive readership, and their ties with large media corporations.Communication theories were used in a comparative content analysis that examined articles written by mass media sources within thetime period represents the nearby time period of Rio Games.The study has mainly focused to the content analysis and the tone of presentation. Analyzing the content of these articles, several major trends appear.The analysis has shown that there is significant relationship between length of the news article and its perceived importance. Also when analyze the articles agenda, intentions and motive behind the various frames.Key words: Media, Framing, Rio Olympics, Mass media, Communication

Introduction

Media framing is the way in which information is presented to its audiences. Goffman was the first to concentrate on framing as a form of communication and defined “framing” as a “schemata of interpreta¬tion” that enables individuals to “locate, perceive, identify and label” occurrences or life experiences (Goff¬man, 1974).

The news media, and more specifically print media, serve as valuable sources of information and powerful modes of communication. This power controls much of what people understand of events that occur around the world on a daily basis. The way information is transferred to its recipients comes through various forms of communication. In social theory, a ‘frame’ consists of a schema of interpretation, collection of anecdotes, and stereotypes that individuals rely on to understand and respond to events. In communication, framing defines how news media coverage can shape mass opinion by using these specific frameworks to help guide their reader to understanding.

Scholars have recognized sports media’s role in framing and agenda setting (Billings and Angelini,2007, Zaharopoulos, 2007). The mass media has an agenda, even in sports media, and it uses its communication to create frames of information for the public to consume (Zaharopoulos, 2007). Zaharopoulos found that the frames have primarily reflected journalistic values, such as impact, relevance and proximity, and so these values have shaped what stories were told and how they were portrayed to the audience (2007).

National Olympic Committee of Sri Lanka was founded on 5th April 1937 by delegates from controlling bodies for athletics, boxing and swimming in Sri Lanka. Their first aim was to arrange the participation of Ceylon (now Sri Lanka) at the British Empire Games which were to be held in Sydney the following year. Then the Committee started to prepare its participation in the 1940 Olympic Games, which unfortunately had to be cancelled owing to the war. Its first participation therefore did not take place until 1948.

If we trace back the history of sports in Sri Lanka, the year 1948 can be labeled as a golden year. It was in that year that a Silver Medal was won by Sri Lanka at the International Olympic Games. Duncan White won a Silver Medal in 400m hurdles in that year and thereafter, Sri Lankan sports have marked forward with many ups and downs on its way during the last years. The highest award that Sri Lanka could win during the recent past was the winning of a Silver Medal by SusanthikaJayashinge at Sydney Olympics in the year 2000.

Literature review

Framing theory

Today, media effects can be characterized as "social constructionism" (Scheufele, 1999, p. 103). Mass media constructs social reality by "framing images of reality . . . in a predictable and patterned way" (McQuail, 1994, p. 331). According to Gamson and Modigliani (1989), "Media discourse is part of a process by which individuals construct meaning, and public opinion is part of the process by which journalists . . . develop and crystallize meaning in public discourse" (Gamson& Modigliani, 1989).

Robert Entman modernized this definition by specifying that "to frame a communicating text or message is to promote certain facets of a 'perceived reality' and make them more salient in such a way that endorses a specific problem definition, causal interpretation, moral evaluation, and/or a treatment recommendation" (Entman, 1993, p. 51).

Olympic framing

Entman described framing as such: "To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, casual interpretation, moral evaluation and/or treatment recommendation for the item described" (1993). Every two years, the mass media turns its eyes to the Olympic Games. The Olympics is an event that is extensively covered by the media and has been covered on a large scale, even back when the Winter and Summer Olympics were in the same year (Puijk, 2009).

Thus, it could be argued that despite the IOC's stated desire to contribute to productive international dialogue and peaceful coexistence, the Olympics actually serve as more of a vehicle for displays of cultural and political dominance. Putting this debate aside, international sporting events like the Olympics can indeed open up a conversational space for nations that are having trouble engaging one another in a positive or constructive way, thus making sports a powerful tool for international diplomacy. While sports are "not a cure for animosities and conflicts that have existed for 50 years," scholars have suggested that the "success of the likes of Michael Jordan, Mark McGwire, Jesse Owens, or Pelé can have positive effects beyond the playing field, onto the political chessboard" (Goldberg, 2000, p. 69).

Methodology

In order to explore the relationship between media framing and its effects on the portrayal of events in the news a content analysis was performed on articles pertaining to the Rio Olympic Games. Five articlesfrom mass media which were generated public debate in the context of Sri Lanka were chosen. Given the time and space limitations of the study, the article selection was limited to the short time period of 31th July to 5th September. This time period was chosen because it represents the nearby time period took place Rio Games.The following six articles were chosen by four mainstream media sources: Daily mirror, Sunday Leader, The Sunday Times and Daily News. These sources were chosen because of their prominence and extensive readership, and their ties with large media corporations. Also their reputation among independent news media has being credible and authentic.

Content analysis is a method of research defined, in brief, as "the systematic assignment of communication content to categorize according to rules, and the analysis of relationships involving those categories using statistical methods (Riffe, Lacy & Fico, 2005, p. 3). Under the consideration of framing theory, researchers are able to conduct content analysis by measuring clusters of messages also known as frames to see how these are then incorporated into their audiences' schemata (Entman, 1993). Content analysis is essential to finding patterns, based on which scholars and researchers can methodically evaluate news media and its use of framing. In turn, this allows for the comparison of possible agenda setters' bias of the event.

Research Design

The purpose of this paper is to analyzethe relationship between media framing and its effects on the portrayal of Rio Olympic 2016 in the news. Articles were categorized by length , small (0-400 words); medium (401-800 words); long (801- 1,200 words) and the tone of present (positive, negative or neutral) which varied depending on source of media.

Selected articles

Article 1) Daily Mirror, “OMEGA felicitates Sri Lankan Olympic Team as they prepare for Rio 2016”

Article 2) The Sunday Leader “NOC under attack over Olympic delegation”

Article 3) The Sunday Times “No hopes for Sri Lanka at Rio Olympics say Minister of Sports and NOC President”

Article 4) Daily News, “Sri Lanka fails to make impact in Rio”

Article 5)The Sunday Times “NOC decides to do away with Managers for Rio Olympics”

Article 6) Daily Mirror, “Refugee athletes can compete at Rio under Olympic flag”

Findings

Out of the six articles examined in this study and evaluate the number of words in the below.Two of them were written with less than 400 words and four with more than 650 words, as shown in Table 1.

Table 1: The length of news stories

Length	Short	Medium	Long
	1,6	5	2,3,4

Note: *short indicates 0-400 words; medium, 401-800 words; and long, over 800 words.

The analysis has shown that there is significant relationship between length of the news article and its perceived importance. By analyzing article length, it was able to understand and draw conclusions about how important the media source felt the covered topic was or should be regarded by its reader. The reason is that the magnitude of a news article can be signified by the location of the story and its length. For example, a news story on the front page and 900 words long can be perceived as more important to its reader than one buried in the middle of the publication and written with only 400 words.

Table 2: The tone of news stories

Tone	Positive	Negative	Neutral
	1, 6	2, 3, 4	5

Note: perspective of the reader (positive, negative or neutral)

By picking out several key words in the quotations of the articles, trivializing and condescending framework becomes evident.

In article 1,`OMEGA felicitates Sri Lankan Olympic team as they prepare for Rio 2016’ by *Daily Mirror* has added optimistic impression to the reader. This article says OMEGA is the Official Timekeeper of the 2016 Olympic Games. The journalist has used the phrases ‘delighted to host Sri Lanka’s athletes’, ‘pride in representing’, ‘very best of luck for their respective events’, ‘we are proud to give them the recognition’ evoke a sense of positive.He has concluded the article by adding that`the Olympic Games have evolved over time, Omega’s own excellence in timekeeping has continued to grow’ and mentioned the positive relationship of OMEGA and Sri Lankan Olympic team using the innovations for 2012 Olympic marketing and brand promotion.

Another article from *Daily Mirror* newspaper, article 6, has revealed the pure meaning of Olympics which has no any discrimination and also encourage of sport by all people in society, regardless of sex, age, social background or economic status. The titled, `Refugee athletes can compete at Rio under Olympic flag’ has shown a value of Olympism and totally positive perspective. The last paragraph said that, `these refugee athletes will be welcomed to the Olympic Games with the Olympic flag and with the Olympic anthem.They will have a home together with all the other 11,000 athletes from 206 National Olympic Committees in the Olympic Village’. By presenting this article, the writer gives the reader the perception that the Olympic for all. The implications of these descriptions add a positive tone to the reader about Olympic movement.The overall positive tones of these articles create a frame from which the readers can better understand who the movement speaks for and why they are speaking for it.

There are three article can be identified as negative aspect out of six selected newspaper articles. In article 2, `NOC under attack over Olympic delegation’ by *The Sunday Leader* has the one of leading article in the Games time of 2016 Olympics. The journalist has used the phrases such as, large number of officials were taken to Rio using government funds, the ministry had taken over 40 officials for only nine athletes to the Olympics in Rio and `We also promised to have the amendments before the end of September this year, said the Minister’. The reader can imagine a critical issue among the NOC and the government when reading this article. Article 3 and 4, created totally negative ideas and bad image about Rio Olympic team and the officials. The headline of article 4 is `Sri Lanka fails to make impact in Rio’. These conflicting frames illustrate to the reader the cause of the demonstrations and the reasons why they are judge the athletes before participating events. These harsh descriptions provide quite a different viewpoint of the mind of reader.

Article 5, `NOC decides to do away with Managers for Rio Olympics' by*The Sunday Times*, has showed neutral tone because the news is difficult to judge as positive or negative tone. Reader has faced many difficulties to evaluate the fairness or unfairness of the issue.

Conclusion

Upon analyzing the content of articles pertaining to the Rio Games, 2016 written by leading newspapers, several trends became salient. First, it is important to note that the difference in lengths between news sources may lie in the printing costs that accompany many of the news articles. And so, comparing this newspaper articles, the alternative media's longer articles may be attributed to the fact that they are all online-based instead of print.Afterward analyzing the content of these articles, several major trends appear. Also when analyze the articles agenda, intentions and motive behind the various frames.

News media serve as an effective source of information and powerful mode of communication. In order to communicate efficiently, writers and journalists used media frames to streamline information flow to their readers. Framing is, on the most fundamental level, the combination of words that form a sentence, phrase or story that consequently provides a message to its recipient. This message, whether it is provided by mass or alternative media, is being framed in some way

References

Billings, A. C., &Angelini, J. R. (2007).Packaging the Games for Viewer Consumption: Gender, Ethnicity, and Nationality in NBC's Coverage of the 2004 Summer Olympics.*Communication Quarterly*, 55, 1, 95-111.

Entman, R. M. (1993). Framing: Towards clarification of a fractured paradigm. *Journal of Communication*, *43*(4), 51-58.

Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, *95*, 1—37.

Goffman, E. (1974). *Frame analysis.* NY: Free Press.

Goldberg, J. (2000). Sporting Diplomacy: Boosting the Size of the Diplomatic Corps. The Washington Quarterly, 23(4), 63-70.

McQuail, D. (1994). *Mass communication theory: An introduction* (2nd ed.). Thousand Oaks, CA: Sage.

Puijk, R. (2009). Intense Media Coverage. Communications: The European Journal of Communications Research,34, 1-20.

Zaharopoulos, T. (2007).The News Framing of the 2004 Olympic Games.*Mass Communication & Society*, 10, 2, 235-249.

Links of the selected articles

http://sports.dailymirror.lk/tag/2016-rio/

http://www.dailymirror.lk/113581/OMEGA-felicitates-Sri-Lankan-Olympic-Team-as-they-prepare-for-Rio-

http://www.thesundayleader.lk/2016/09/05/noc-under-attack-over-olympic-delegation/

http://www.sundaytimes.lk/160731/sports/no-hopes-for-sri-lanka-at-rio-olympics-say-minister-of-sports-and-noc-president-202667.html

http://www.sundaytimes.lk/160731/sports/noc-decides-to-do-away-with-managers-for-rio-olympics-202988.html

http://dailynews.lk/2016/08/25/sports/91305

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Analysis Of Achievement Motivation And Coping Strategies Among University Athletes

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Abstract

Objective Of The Study Was To Find Out The Relationship Between Goal Orientations (Task And Ego) And Psychological Coping Skills Among University's Athletes. Participants Were 85 Athletes, Both Male (N= 35) And Female (N = 50) Aged Between 19 And 28 Years Old Who Represented One Of The Largest University Of Eastern Part Of India I.E. Utkal University, Bhubaneswar. Results Indicated That There Is A Moderate Relationship Between Goal Orientations And Psychological Coping Skills, With Ego Orientation Showing A Stronger Relationship Than Task Orientation. Moreover, The Results Showed That The Athletes Have Both High Task (Mean=3.97) And Fairly High Ego Orientations (Mean=3.71), And There Was No Significant Differences Between Males And Females In Goal Orientations (P>.05). The Results Found That Ego Orientation Was Significantly Correlated With All The Six Coping Skills (P< .01) But Task Orientation Was Significantly Correlated With Only Five Coping Skills (P< .01) As Freedom From Worry Was Not Significantly Correlated With Task Orientation. The Results On The Relationship Between Gender And Psychological Coping Skills Found That Females Were More Likely To Use Concentration And Peaking Under Pressure, Whereas Male Athletes Used Freedom From Worry As Their Coping Responses. The Study Also Found That There Is A Significant Relationship Between The Athlete's Goal Orientation And His/Her Psychological Coping Skills.**Key Words-** Athletes, Achievement Motivation, Coping, Motivation, Gender

Introduction

Achievement goal theory proposes that there are two predominant goals or bases of subjective success in achievement situations, namely a task and an ego goal orientation (Nicholls, 1989). When an athlete is task-oriented, the individual is interested in demonstrating mastery of the task, perceptions of ability are self-referenced, there is an interest in learning and self-development, and the focus is on the task with little concern for the outcome. An ego-oriented athlete, on the other hand, is interested in demonstrating superior ability to others and perceived ability is normatively referenced. Winning and beating others is the major focus of an ego-oriented athlete. Contemporary research has revealed that important relationships exist between goal orientations and achievement cognitions and behaviour (e.g., Lochbaum & Roberts, 1993; Roberts & Ommundsen, 1996; Roberts, Treasure, & Kavussanu, 1997), and both Roberts (1984, 1986) and Duda (1993) have suggested a relationship between achievement goals and responses to stress in sport. Individuals who are predominantly ego-oriented may perceive more stress in achievement contexts because they utilise normative criteria to assess success. Support for this hypothesis was first provided by Lewthwaite (1990), who found that an ego-oriented goal was related to higher levels of anxiety in the athletic setting. Ntoumanis and Biddle (1998), on the other hand, found that when self-confidence was high there was no significant

relationship between high ego orientation and high levels of anxiety. The high task/low ego athletes employ more active coping and social emotional support strategies than high task/high ego and low task/low ego athletes (Pensgaard and Roberts, 2003). Therefore, an understanding of the athletes' achievement goal orientation and their mental coping skills may assist the coach to develop proper intervention programs to improve mental coping skills, which may ultimately lead to an enhancement of performance. However, the above research findings are lacking in India and such research will help to understand more about how coping strategies play their roles in motivating athletes especially with the university athletes. The study aims to investigate the relationship between achievement goal orientations and the psychological coping skills of University's athletes in one of the largest universities in eastern part of India.

Methodology

Participants

A total of 85 university athletes (35 males, 50 females) who willing to participate, representing a wide variety of sports (football, athletics, volleyball, kabaddi, kho-kho) participated in this study. Goal orientations and psychological coping skills were assessed using questionnaires. The age range of the respondents was from 19 to 28 years (M = 21.66, SD = 1.63). These athletes were all from university teams and had competed in one or more competitions in the All India Inter-Varsity / Inter University (Zonal) Competitions.

Procedure

A self-report questionnaire was given to the University Sports Officer and he distributed them to the athletes who were selected to represent Utkal University in various games and sports. The researcher explained the purpose and information on the completion of the questionnaire to the university sports officer to ensure that the athletes completed the questionnaires as required. The sports officer then passed the questionnaires on to the participants to complete when they attended training sessions. The completed questionnaires were collected back after one week from the commencement of the university selection camp.

Instrumentation

The following instruments were used to collect the data required.

Task and Ego Orientation in Sport Questionnaire (TEOSQ Duda & Nicholls, 1992))

The subscales were found to be internally consistent with alpha levels for task orientation .79 and .89 (Cumming, & Hall, 2004) study and from .79 to .87 respectively (Gano-Overway, Guivernau, Magyar, Waldron, & Ewing, 2005).

Athletic Coping Skills Inventory – (ACSI-28; Smith, Schultz, Smoll, & Placek, 1995)

Each subscale consisted of four items that were averaged to provide a subscale range of 0 to 3. The subscales were found to be internally consistent with alpha levels ranging from .62 to .78 and a total (personal coping resources) scale alpha of .86 as reported in Smith, Schutz, Smoll & Ptacek (1995).

Analysis of Data

All the data were analyzed using the Statistical Package of Social Sciences (SPSS) program software version 19.0. An independent T-test was used to compare the mean between male and female on the achievement goal orientations and mental coping skills score in athletes. The Pearson Product Moment Correlation was used to analyze the relationship between the achievement goal orientations and the mental coping skills score in athletes.

Results

Descriptive statistics

The mean and standard deviations of all the variables are presented in Table 1.

Table 1. Descriptive statistics of sub variables of goal orientation and coping skills of athletes (n=85)

Variables	Mean	SD
Task Orientation	3.97	.60
Ego Orientation	3.71	.58
ASCI – 28		
Coping with adversity	2.08	.46
Peaking under pressure	1.94	.53
Goal setting	2.02	.56
Concentration	1.98	.48
Freedom from worry	1.12	.60
Confidence	2.03	.50
Coachability	1.85	.27

In general, the participants were highly task oriented and were also perceived to have a fairly high ego orientation as evidenced by the high mean scores (see Table 2). For the ACSI – 28, the athlete's most frequently used coping skills is the coping with adversity skill (M = 2.08, SD = .46) and the least frequently used is the freedom from worry (M = 1.12, SD = .60).

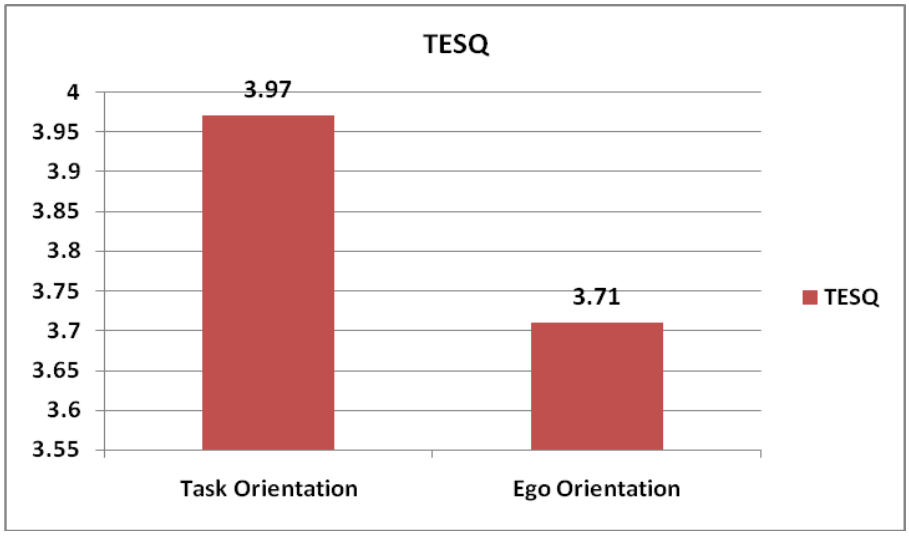

Figure 1. Mean score of the achievement motivation of the athletes

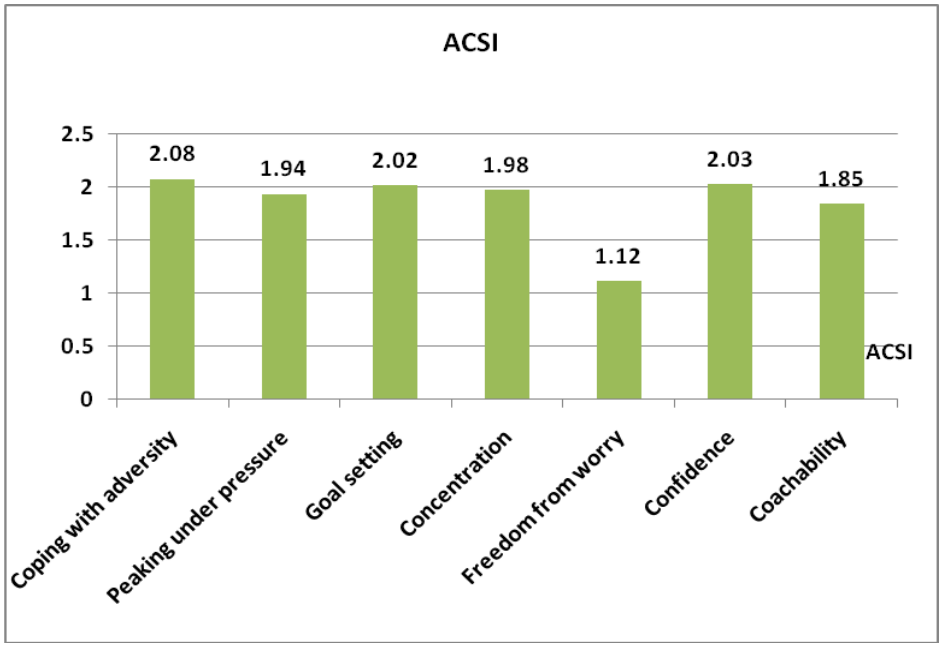

Figure 1. Mean score of the of the athletes in the variables of coping strategy

Means differences between ACSI – 28 scales and gender

Table 2. Independent-sample t-test Results on ACSI-28 scales according to Gender

ACSI – 28 Scale	t	P
Peaking under pressure	-2.153	.034*
Concentration	-2.702	.008**
Freedom from worry	2.618	.011*

*p < .05, **p < .01

Table 2 showed that there were significant differences in the three subscales of ASCI – 28 between males and females, which were concentrated with *t* (83) = -2.702, p = .008, freedom from worry with *t* (83) = 2.618, p = .011, and peaking under pressure with *t* (83) = -2.153, p = .034. Except these three none of the variables of ACSI accounted for significant difference. In addition, the results showed that there were no significant differences between males and females on the task orientation (p >.05), and ego orientation (p > .05).

Quantitative relationship between task orientation and coping skills

Table 3. :*Coping strategies correlated with achievement goal orientation*

ACSI – 28	Task orientation	Ego orientation
Coping with adversity	.34**	.46**
Peaking under pressure	.28**	.52**
Goal setting	.38**	.53**
Concentration	.23**	.36**
Freedom from worry	-.20	-.34**
Confidence	.42**	.47**
Total coping resource	.39**	.54**

** $p < .01$.

As illustrated in Table 3, Pearson product-moment correlations revealed weak to moderate correlations among the achievement goal orientations and ACSI – 28 subscales. The five subscales of coping skills (coping with adversity, peaking under pressure, goal setting, concentration and confidence) and the total of personal coping resources were positively correlated and were significant with both task and ego orientations ($p < .01$). Freedom from worry was found to be negatively correlated and was significant with ego orientation only.

Discussion

The results of the study showed that athletes have comparatively higher task orientation profiles and there are no gender differences on achievement goal orientations. These findings, notwithstanding, the study also found that there are some gender differences in the coping skills among the athletes and that there are significant positive relationships between certain coping skills and achievement goal orientations. The results of this study showed that the university athletes in question had high task (M = 3.97) and fairly high ego orientations (M = 3.71).

Indian athletes' achievement goal orientations are both high, which means that the athletes were high task oriented (M4.14) and fairly highly ego oriented (M = 3.49). Omar-Fauzee and Abdul Razak (2005) attributed the higher task orientation scores to systematic training and access to the university facilities. Likewise, the athletes in this study could have also benefited from the training programs and accessibility to university sport facilities, which could have encouraged them to focus on developing their competencies in their respective sports field.

The present study also compared whether there was any gender difference in the athlete's achievement orientation. The results showed that there was no gender difference in the athletes' achievement goal orientation. This conclusion is different from previous studies which had found that there were gender differences in the achievement goal orientation. Therefore further research is needed to explain the inconsistencies in these results and clarify whether there are indeed gender differences in goal orientations among athletes.

The results of the present study also showed that there were some gender differences on the coping skills among the athletes. Females scored higher than males on the subscales of "peaking under pressure" and "concentration". However, male athletes scored higher on "freedom from worry" than their female counterparts. These results lend some support to a study by Tamres, Janicki and Helgeson (2002) which found that females reported greater use of coping behaviors compared to men.

Results of the present study on relationship between task orientation and coping skills showed that there were significant low positive relationships between task orientation and the subscales of "confidence", "goal setting" and "coping with adversity". These findings suggest that high task oriented athletes indicated that they have confidence in their ability through consistently working hard during practices and competitions, and set and work towards specific performance goals for themselves, and they are able to cope with adversity by remaining positive against all adversities.

These findings are in accord with past studies (e.g. Theodosiou & Papaioannou, 2006; Papaionnou et al., 2006; Sit & Lidner, 2004) which have also shown that task oriented individuals are intrinsically motivated, focus on self-referenced criteria such as personal improvement and learning in order to determine their competence.

When ego orientation is correlated with coping skills, the results of the present study showed that there were moderate and positive relationships with the coping skills of “goal setting”, “peaking under pressure” and “confidence”. The present study found that there is some relationship between the achievement goals and coping skills of Indian athletes. However, these findings also suggest that further research in this area is likely to assist sport psychologists and coaches in developing a more thorough understanding of the achievement goal orientations of Indian athletes and those interventions can undoubtedly play a key role in helping them to cope better in competitive settings. The findings from the present study also suggest that it would be desirable for future research to consider larger sample sizes of athletes for better generalizability of research results.

References

Ames, C. & Ames, R. (1981). Competitive versus individualistic goal structures: The salience of past per10rmance information for causal attributions and affect. *Journal of Educational Psychology*, 73, 411-418.

Ames, C. & Archer, J. (1988). Achievement goals in the classroom: Students' leaming strategies and motivation processes. Journal of Educational Psychology, 80, 260-267.

Boyd, M.P. (1990). The effects of participation orientation and success-failure on post-competitive affect in young athletes. Unpublished Doctoral Dissertation, University of Southern California, Los Angeles.

Diener, C. & Dweck, C. (1978). An analysiS of learned helplessness: Continuous changes in per1ormance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology*, 36, 451-462.

Duda, J. L. (1988).- The relationship between goal perspectives and perSistence and 220 / *Joumal of Sport Behavior*, Vol. 16, No.4, 95-106.

Dweck, C. S. & Elliott, E. (1983). Achievement motivation. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, personality and social development* (Fourth edition, Vol. 4, pp. 643-691). NY: Wiley.

Elliott, E. & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, 54, 5-12.

Nicholls, J. (1984a). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.

Nicholls, J. (1984b). Conceptions of ability and achievement motivation. In R. Ames & C. Ames (Eds.), *Research on motivation in education: Student motivation* (Vol. I). NY: Academic.

Vallerand, R.J., Gauvin, L., & Halliwell, W. R. (1986). Negative effects of competition on children's intrinsic motivation. *Journal of Social Psychology*, 126, 649-657.

White, S. A., & Duda J. L. (1991 I October). *The interdependence between goal perspectives, psychological skills, and cognitive interference among elite skiers*. Paper presented at the annual meeting of the Association for the Advancement of Applied Sport Psychology, Savannah, GA.

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African Performance on FIFA 2018 World Cup

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Abstract
The aim of the present study is to explore African goal scoring, offensive and defensive related performance in respect to successful teams (top four) in 2018 FIFA world cup. In doing so,fifteen African teams match and twenty three successful teams match was draw for match sampling by employing census and judgmental sampling technique respectively. Retrospective cross sectional research design with the comparative approach is employed. The selected study variables are goal scoring related (goal, shot, shot on-target, shot off-target and shoot blocked) offensive related(ball possession, corner, pass, pass accuracy, total distance coved) and defensive related(clearance, tackle and block) performance and data is retrieved from the official website of FIFA. To this end descriptive and independent t-test statistical analysis is used and the level of significance is set at P< 0.05. Result shows that African team'sconvert 12% of total shot into goal, 29% total shot is addressing their target and 41.5% of on-target shoot is converted into goal. Comparison of the defensive related performance shows no significant difference among Africa and successful teams(p>0.05). In contrast in passing (381.8±110.7 Vs 475.9±142.1) pass accuracy (80.40 ±4.95 Vs 85.43 ±4.70) ball possession (46.2 ± 9.34 Vs 52.0± 7.81) African are significantly less than successful teams (P <0.05)but in other offensive related performance there is no difference(P>0.05). In goal scoring related performance African teams are less in goal(1.13 ±0.83, Vs 2.13±1.57) and shoot on-target (3.20±1.93 Vs 4.52 ±2.44)(P<0.05). However no difference in shot, off-target shoot and blocked Shot(P>0.05). In conclusion, relative to successful teams, the weakness of African are on goal scoring, on-target shot, pass, pass accuracy and ball possession. Key word:Africa, FIFA 2018, Performance, successful team

Introduction

FIFA World Cup is the biggest, most known soccer tournament in the World and more than 200 countries competed on pre-qualification of the main tournament, however, only 32 countries got the chance to involve on the tournament. The beginning of FIFA World Cups traced back to 1930 when first took place in Uruguay. The competition is held in every four years until now, but only eight nations had won the tournament – Brazi (5 title), Germany(4 title), Italy(4 title),Uruguay(2 title), France(2 title), Argentina(2 title), England (1 title) and Spain(1 title) (Martin Flég 2014). Winning this tournament represents the greatest achievement for players, national team and coaches in football. Besides the glory, the winner team promotes the art of tactical approaches and ideas lead them for winning (Kempe, M., 2016).

African qualification to FIFA 2018 World Cup is organized by the *Confederation of African Football* (CAF). CAF had 54 association members in the year 2015, but only 53 members participated in the qualification (Zimbabwe did not register for the competition) (https://resources.fifa.com *August 2018*). However, Africa represents by five national teams on FIFA 2018 World Cup, namely Egypt, Tunisia, Morocco, Nigeria and Senegal. No African teams passed the group stage qualification of the tournament, which is accepted as poor performance or less success achievements. On the other hand

scholars argue that performance in football is specifically manifested by physical, technical and tactical elements (Folgado,*et al*, 2017, *Stolen,et. al.*, 2005) Analysis of these performance elements in game-related statistics helped to reveal major trends in football and to describe and distinguish between successful and less successful teams Sarmento*et al.,* (2014)and Mackenzie and Cushion, (2013). Additionally match analysis helps to identify the strengths, which can further developed and weaknesses or suggest areas for improvement of one's own team, thereby enabling the former to be further developed and the latter to be worked upon (Carling et al., 2005).

For example, Carlos L., *et. al.* (2010) found that winning team in Spanish football league exhibited significantly higher total shots, shots on goal, shoot accuracy, assists, offside committed, and crosses against whereas losing teams had significantly higher in a number of crosses, offside received. Upon the end also they suggested that total shots, shots on goal, crosses, crosses against, ball possession and venue had significantly discriminated successful and unsuccessful team. However, whilst this study provided some evidence of different patterns of play between teams deemed successful or unsuccessful, the findings may be less applicable to modern football due to the tactical and technical evolution of football is still more active. However similar result is figured out by Low *et al*. (2002) by their study conduct on 2002 FIFA World Cup. Additionally Julen C., *et al* (2012) suggested that winning, drawing and losing of national teams is discriminated by ball possession total shots and shots on target.A study conducted on the physical and technical quality of Chinese super league football team by Gai Yang *et al*bear witness as the successful team had exhibited a significantly greater amount of possession in opponent's half and the time of possession increased the probability of a win compared with a draw and losing. In line to this Hook and Hughes (2001) demonstrated that successful teams exhibited a greater match time with ball possession than unsuccessful teams in the UEFA European Football Championship 2000 (Belgium and Netherlands). Again study conducted on English Premier league by Jones *et al*. (2004) secured that successful teams typically exhibited longer match times with ball possession than unsuccessful teams. However in contrast to this, the study conducted on FIFA 1994 world cup by Stanhope (2001) reported that match time with ball possession was not associated with match success. But while 2014 FIFA World Cup successful teams had high rates of the ball possession(Kemal G., 2015).

Physical performance in football incorporates all discrete movements such as total distance covered and distance covered with high intensity sprinting (Cecilia G *et al* 2012). On the study conducted in FIFA 2010 world cup by Filipe M., *et al* (2013)reported that there is no statistically significant difference on the mean distance covered by teams. However, in the last few years study indicates as total distance covered by the team is increase from season to season(Barnes C., *et al* 2014).In FIFA world cup tournament, like in business,the result of team's are often the best indicator of performance. However, no one of African national team were successfully passed the group stage of the2018 tournament. Although there is considerable research and knowledge relating to successful playing strategies in international tournaments, very little is known about African performance. Therefore this study is targeting on goal score, offensive and defensive related performance elements analysis of African national teams in respect to top four teams.

Aim

The aim of the present study being twofold. First to explore African national teams goal score, offensive and defensive related performance on FIFA 2018 world cup. Second, to compare African team's performance with successful teams of FIFA 2018 world cup.The various demands of soccer tournament and performance have been frequently described in the scientific literature. However, there is a lack of studies attempting to address cultural differences in African national team's goal scoring, offensive and defensive related match performance elements especially in comparing to world-class successful teams. Therefore, the aim of this investigation is to explore African national team's goal score, offensive and defensive related performance on FIFA 2018 world cup and to

compare them with successful teams of the tournaments. The results demonstrate that specific performance elements exhibited by African national teams and successful teams. It is hoped that our results contribute to identifying the strengths and weaknesses thereby, enabling the former to be further developed and the latter to be worked upon.

Materials and Methods

Match Sample

Five national teams were represent Africa on Russia 2018 FIFA world cup and each of them were play only three games since they were not passed the group stage of the tournament. On the other hand each successful teams(top four teams) were played seven games. Therefore by employing consensus sampling technique fifteen match of African National teams and twenty eight matches of successful teams were selected for match sampling. However, the website does not divide the data of 90 minutes of normal match and of 30 minutes of extra time. Therefore, five knock-out phase match were excluded from sample by judgmental sampling technique. In summery fifteen African national teams and twenty three successful team match were drawn for match sample.

Research Design

Retrospective Cross sectional research design with the comparative approach was employed to figure out African Performance on Russia 2018 FIFA world cup. Thirteen variables were selected as performance indicators in the analysis and they were divided into three groups according to the available literature(Hongyou L., *et al (*2015), Castellano J., *et al (2012),* Carlos Lago-P., et al (2010) and Esayas H.,(2018)

Table 1 Variables studied based on their categorizes

Categorical group	Variables or match performance indicators
● Goal scoring related Performance	Goal, Shot, Shot on-target, Shot off-target and Shoot blocked
● Offensive related Performance	Ball possession, Corner, Pass, Pass accuracy, total distance coved by team
● Defensive related Performance	Clearance, Tackle and block

Data collection

The match statistics of African national teams and top four national teams(successful teams) on Russia 2018 FIFA world cup were retrieved from the official website of FIFA (https://www.fifa.com/worldcup/statistics August 2018). The reliability of the FIFA match Statistics was established by Castellano*et al.* (2012) by randomly coding five matches and compared with the FIFA website data. The Cohen's Kappa (K) result were between 0.93 and 0.97. Which demonstrates a high reliability index for the FIFA website data.

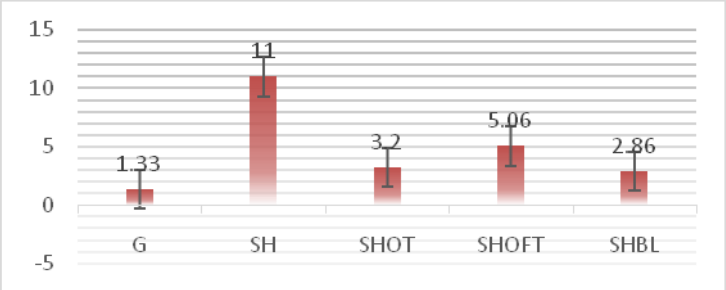
Statistical Analysis

Before further statiscal analysis, the normality distribution of the data was checked using the Kolmogorov-Smirnov tests. Descriptive statistics method were used to figure out African national team's performance and independent T- test was used to compute African performance with successful teams. In commenting on the analysis results, significance was rated through $p<.05$ level. Statistical analysis software IBM® SPSS version 20 was used to analyse the process.

Result

Descriptive statistics of African National team's performance element analysis are presented in table two and chart one. In the goals scoring related performance African national team on Russia FIFA world cup were exhibited an average of (M=1.33± 0.83) goal, (M=11± 4.2) shots, (M=3.2±1.93) shot on-target,(M=5.06±2.25) shot off-target and (M=2.8±1.88) shot blocked. The data reveals, as only 12% total shot is converted into goal and 29 % total shot were addressing their target and 41.5% of on-target shoot is converted into goal.

Chart 1. Descriptive Statistics result of goal scoring performance of African national teams



On the offensive and defensive related performance African national teams were executed an average of (M= 381.86± 110.4 pass with 80.4± 4.95% accuracy), (M=3.6± 2.02) corner shots, (M=46.2± 9.3% ball possession,) (M=104.1± 4.6 Km)total distance covered, (M=2.6± 1.5)blocked ball and (M=26.8± 7.8 ball clearance.

Table 2 Descriptive Statistics result of offensive and defensive related performance of African national teams

	P	PA	CR	BP	DC	TC	BB	CL
M	381.86	80.4	3.6	46.2	104.4	10.6	2.6	26.8
±SD	110.47	4.95	2.02	9.3	4.46	3.6	1.5	7.87

P, Pass PA, Pass accuracy CR, Corner BP, Ball possession DC, Total distance covered TC, Tackle BB, Blocked ball CL, Clearance

African versus Successful FIFA 2018 world cup teams.

An independent t-test was conducted to compare goal scoring, offensive and defensive related performance of African and successful national FIFA 2018 teams.

Goal scoring related performance

There is statistically significant mean difference score between African teams (M =1.13±0.83, 3.20±1.93) and successful teams(M=2.13±1.57,4.52 ±2.44) at (t= 2.53, 1.83 P<0.05) in goal scoring and on-target shot respectively. The result suggested on average African teams tends to less goal score and on-target shot than successful teams in Rusia 2018 FIFA world cup. However, statistically no differences were found in the rest variable of goal scoring related performance*(shot, Shot off target and Shot blocked).*

Table 3 Result of T-test and descriptive Statistics goal score related performance (*Goal, shot, shot on-target, Shot off target and Shot blocked)*

		Groups					95% CI for		
		African teams		Successful teams			Mean		
Variables	N	M	SD	N	M	SD	difference	t	df
Goal	15	1.13	0.83	23	2.13	1.57	0.19, 1.79	2.53*	34.8
Shot	15	13.52	4.12	23	11.0	4.18	-0.28, 5.33	1.83	30.4
Shot On-target	15	3.20	1.93	23	4.52	2.44	-0.12, 2.77	1.85*	34.5
Shot off-target	15	5.06	2.25	23	6.30	2.56	-0.36, 2.84	1.56	32.7
Shot blocked	15	2.86	1.88	23	3.21	1.83	-0.91, 1.61	0.56	29.4

*P< 0.05

Offensive related Performance

The independent t-test result reveals statistically significant difference between African teams (M=381±110.7, 80.4±4.95, 46.2±9.34) and successful teams (M=475±142.1, 85.43±4.70, 52.04±7.81) at (t= 2.28, 3.12 and 2.0, P<0.05)respectively in passing, pass accuracy and ball possession. The result shows successful teams had a higher pass, pass accuracy and ball possession than African national teams on Russia 2018 FIFA world cup tournament. But no statistical difference was found in total distance covered by teams and number of corner shots.

Table 4 Result of T-test and descriptive Statistics offense related performance (*Pass, Pass accuracy, Corner, Ball possession, Total distance covered)*

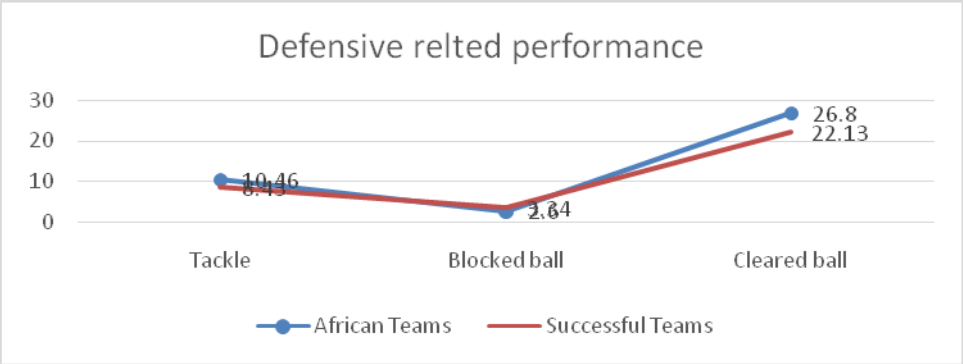
		Groups					95% CI for		
		African teams		Successful teams			Mean		
Variables	N	M	SD	N	M	SD	difference	t	df
Pass	15	381.8	110.7	23	475.9	142.1	10.5, 177.5	2.28*	34.7
Pass Accuracy	15	80.40	4.95	23	85.43	4.70	1.73, 8.3	3.12*	28.9
Corner	15	3. 60	2.02	23	4.47	2.46	-0.61, 2.36	1.19	33.9
Ball Possession	15	46.20	9. 34	23	52.04	7.81	-0.13, 11.82	2.0*	26.2
Distance Covered	15	104.4	4. 46	23	103.6	3. 66	-3.5, 2.09	-0.54	25.8

*P< 0.05

Defensive related performance

There is no statistically significant mean difference score between African teams and successful teams on all defensive related performance. Result of independent t-test shows that statistically no significant difference on tackle, block and clearance between African teams (M=10±3.4, 2.6±1.4, 26.8±7.87 n=15) and successful teams(M=8.43±5.05, 3.34±2.47, 22.13±10.72 n=23) at the .05 level of significant(t= -1.43, 1.5,-1.54 df=35.5, 35.8, 35.3 p>0.05 95%CI for mean difference-4.89, 0.83 -0.56, 2.05 and -10.8, 1.46 respectively.

Chart 2 Defensive related performance African and successful teams



Discussion

UnsurprisinglyAfrican national team's converts only 12% total shot into goal and 29% total shot were addressing their target and 41.5% of on-target shoot is converted in to goal. However, the result of the study indicated that African national teams execute significantly less in number of goals scored and on-target shoots than successful teams in 2018 FIFA world cup whereas in the rest of goal scoring related performance(total number of shoot, shoot off-target, shoot blocked) there is no significant difference among them. This result bear witness as successful teams are more efficient in converting on target shot to goal than African national teams. These result is partially argued with previous research reported that in Spanish soccer league winning teams made more shots and shots on goal than losing and drawing teams,Joaquin Lago Ballesteros and Carlos Lago-Peñas (2010)&Armatas*et al.,* (2009). These results are quite similar to the ones Kempe, M., *et al* (2016) who found successful teams significantly score more goals in FIFA 2014 world cups whereas in rest (shoot, shoot off- target and on- target shoots) but not. A Similar result was found by Clemente (2012), found significant differences for scored goals in the FIFA World cup 2010.

The offensive performance of African National team identified as it is significantly less in a total number of pass, pass accuracy and ball possession than the successful team in FIFA 2018 world cup. The result was consistent with the findings of Clemente (2012) it was found that the most successful teams in the FIFA World Cup 2010 realized more passes per match than other teams. According to the Lago-Peñas*et al* (2011), winning teams in UEFA Champions League significantly have higher ball possession percentages and successful passes values than drawing and losing teams. Additionally, Gai Yang (2018) confirmas the top-ranked teams exhibited a significantly greater amount of possession than unsuccessful teams in Chinese super league. However, these result is contradicted with previous study reported that teams have more possession when they are losing matches than when winning or drawingCarlos L. and Rafael M. (2007). But the study is conducted on single Spanish League and compression is made between winning, drawing and losing teams. Again study conducted on FIFA 1994 world cup byStanhope (2001) reported that match time with ball possession was not associated with match success. But the evolution of performance in soccer is still very active, therefore the implication study conducted before two decade may be less. The less number of pass, Pass accuracy and ball possession makes African national teams disadvantages in organizing and building effective offensive strategies, because the effectiveness of attacking play and ball possession appears keys successful performance indicators Castellano J (2012).

The present result shows that African national teams cover equal total distance with successful teams. These results are in contrast with previous research that reported players from the more successful teams covered fewer distances at all speed range categories compared to the players from the less successful counterparts Ermanno R *et al* (2009). The major difference between these two studies is that national teams in the present study competed in the short tournament of FIFA world cup. In

contrary Ermanno R *et al* teams were longitudinally competed for one season at same national league. On the other hand the result of the present study in line with previous study that reports, as total distance covered by players cannot be considered important discriminator of performance among winning and losing teams (Alexandre D., *et al* 2011).

The defensive related performance(tackle, clearance and blocked ball) result of the present study secured as there is no significant deference between African national teams and 2018 FIFA world cup successful teams. The result has two floods meaning, African teams was not uniquely prone to attaching of their opponents and have equivalent defensive performance with the successful team of 2018 FIFA world cup. In contrast to this, the study conducted by Esayas H.(2018) reports as unsuccessful team exhibits greater number of clearance and tackle than successful team. But the major difference between this studies is that Esayas H. investigate on two African National teams based FIFA rank. Contrarily, other study shows that unsuccessful teams were worse than successful teams in all the defensive performance variables analyzed; in addition to variables related to offensive performance, success in the last World Cup was also related to team's defensive performance,Delgado *et al*(2013).

Conclusion

In conclusion, this study confirmed:

African teams in FIFA 2018 World cup convert only12% of total shot into goal, 29 % total shot were addressing their target and 41.5% of on-target shoot is converted into goal.Relative to successful teams, the weakness of Africans are on goal scoring, on-target shot, pass, pass accuracy and ball possession. African national teams exhibits less goal, shoot, pass, pass accuracy, ball possession than successful teams in FIFA 2018 World cupThere is no defensive related performance (tackle, blocked ball and clearance) difference among African and successful teams.

Practical applications and limitations

Established performance profiles can be used for coaches and Sport science professionals as baseline references for training, intervention, talent identification, and development and player selection. In the current research there are several limitations that should be considered in further studies concerning African performance first, opposition strengths, match location and match outcome is an important contextual factor that has not been explored by the present study. Second, Tactical approach of a team does not considered which it could play a major role in explaining offensive and defensive performance outcomes. Finally, the current research does not consider dynamics within matches ex. First half and Second half.

Reference

Alexandre D., Karim Ch.,, Del P. W., Said A., Dominique K., Ricardo B., Gian N., and Christopher C., 2011. Comparison of physical and technical performance in European soccer match-play: FA Premier League and La Liga*European Journal of Sport Science,* 11(1): 5159

Armatas, V., Yiannakos, A., Papadopoulou, S. &Skoufas, D. (2009). Evaluation of goals scored in top leveled soccer matches in Greek "SuperLeague" 2006-07. Serbian Journal of Sports Sciences, 3, pp.39-43

Barnes C., Archer D., Hogg B., Bush M, and Bradley P. 2014. The Evolution and MatchPerformance. *Int. J. Sports Med.*; 35: 1–6.

Carling C, Williams AM, Reilly T. Handbook of soccer match analysis: a systematic approach to improvingperformance, Abington, London- UK: Routledge; 2005.

Carlos Lago-Penas, Joaquin Lago-Ballesteros, Alexandre Dellal and Maite Gómez, 2010. Game-related statistics that discriminated winning drawing and losing teams from the Spanish soccer league *Journal of Sports Science and Medicine* 9, 288-293

Carlos L., and Rafael M., 2007. Determinants of possession of the ball in soccer, *Journal of Sports Sciences*, 25:9, 969-974, DOI: 10.1080/02640410600944626
Castellano, J., Casamichana, D. and Lago C., 2012. The use of match statistics that discriminate between successful and unsuccessful soccer teams. *Journal of Human Kinetics*, 31, 139 – 147.
Cecilia G., Halil T., and Fatma A., 2012. The Effects of 8-Week Speed Training Program on the Acceleration Ability and Maximum Speed Running at 11 Years Athletes. *Coll. Antropol.* (36) 3: 951–958
Clemente, F. M., Figueiredo, A. J., Martins, F. M. L., Mendes, R. S., and Wong, D. P., 2016. Physical and technical performances are not associated with tactical prominence in U14 soccer matches. *Research in Sports Medicine*, 24(4), 352–362.
Delgado-Bordonau J. L.,Domenech-Monforte C.,Francisco Guzmán J.,Mendez-Villanueva A. 2013. Offensive and defensive team performance: relation to successful and unsuccessful participation in the 2010 Soccer World Cup. *Journal of Human Sport & Exercise*ISSN 1988-5202. Faculty of Education. University of Alicante. doi:10.4100/jhse.2013.84.02
Ermanno R., Franco M., Carlo C., Aaron J., and Ulrik W., 2009. Technical performance during soccer matches of the Italian SerieA league: Effect of fatigue and competitive level. *Journal of Science and Medicine in Sport*12, 227—233.
Esayas H., 2018. Technical Performance of Ethiopian Male Soccer National Team. *Turkish Journal of Sport and Exercise Science 21:2*
Filipe M., Clemente, Micael S. C., Fernando M. Lourenço M., Monika O. I., Rui M., 2013. Activity Profiles of Soccer Players during the 2010 World Cup.*Journal of Human Kinetics volume* 38; 201-211.
Folgado, H., Gonçalves, B., &Sampaio, J. 2017. Positional synchronization affects physical and physiological responses to preseason in professional football. Research in Sports Medicine, 26(1), 51–63.
Gai Yang, Anthony S. Leicht, Carlos Lago and Miguel-Ángel Gómez, 2018. Key team physical and technical performance indicators indicative of team quality in the soccer Chinese super league, *Research in Sports Medicine*, 26:2, 158-167, DOI: 10.1080/15438627.2018.1431539
https://www.fifa.com/worldcup/statistics/ 2018 FIFA world Cup Russia June 14- Julay 15. August 01/2018.
https://resources.fifa.com/image/upload/draw-procedures-africa-2667092.Augest 01/2018
Hongyou L., Miguel-Ángel G., Carlos Lago-Peñas and Jaime S., 2015. Match statistics related to winning in the group stage of 2014 Brazil FIFA World Cup, *Journal of Sports Sciences,* 33:12, 1205-1213, DOI: 10.1080 /02640414.2015. 1022578
Hook, C., and Hughes, M., 2001). Patterns of play leading to shots in Euro 2000. Pass. Com, 1, 295–302.
Joaquin Lago-Ballesteros and Carlos Lago-Peñas, 2010. Identifying the Keys to Success in Soccer *Journal of Human Kinetics volume* 25 85-91
Jones, N. M., Mellalieu, S. D., & James, N. 2004. Team performance indicators as a function of winning and losing in rugby union. International *Journal of Performance Analysis in Sport*, 4(1), 61–71.
Julen C., David C., Carlos L., 2012. The Use of Match Statistics that DiscriminateBetween Successful and Unsuccessful Soccer Teams. *Journal of Human Kinetics* 31;139-147 DOI: 10.2478/v10078-012-0015-7 139
Kemal G., 2015. Passing Success Percentages and Ball Possession Rates of Successful Teams in 2014 FIFA World Cup.*International Journal of Science Culture and Sport*
Kempe, M., Vogelbein, M. and Nopp S., 2016. The Cream of the Crop: Analysing FIFA World Cup 2014 and Germany's Title Run. *J. Hum. Sport Exerc., 11*(1), 42-52.doi:10.14198/jhse.2016.111.04
Low, D., Taylor, S. and Williams, M.,2002. A quantitative analysis of successful and unsuccessful teams. *Insight* 4, 32- 34.
Mackenzie, R., & Cushion, C. 2013. Performance analysis in football: A critical review and implications for future research. *Journal of Sports Sciences,*31(6), 639–676. doi:10.1080/02640414.2012.746720
Martin Flégl, 2014. Performance Analysis during the 2014 FIFA World Cup Qualification, 2014. *Sports Science Journal,7,* 183-197
Sarmento, H., Marcelino, R., Anguera, M. T., Campanico, J., Matos, N., and Leitao, J. C., 2014. Match analysis in football: A systematic review. *Journal of Sports Sciences*, 32(20), 1831–1843. doi:10.1080/02640414.2014.898852
Stanhope, J. (2001). An investigation into possession with respect to time, in the soccer world cup 1994. In M Hughes (Ed.), Notational Analysis of Sport III (pp-501–536). Cardiff: UWIC.
Stolen, T., Chamari, K., Castagna, C., and Wisloff, U., 2005. Physiology of soccer. *Sports Medicine*, 35 (6), 501–536.

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Table Tennis Skills Assessment: Skill Performance Indicator And As Predictor Of Playing Performance In Competition

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Introduction

Physical education is concerned with the *how* and *why* of movement techniques. One of its major objectives is placed on the learning of the fundamental movement skills and abilities of an individual. Sports activities represent a major part of the physical education program of which sports skills tests are necessary. Thus, physical educators should be skillful in the evaluation process. Construction of precise and meaningful measuring devices to help evaluate this objective is very necessary. In fact, it is doubly important that continued efforts be made to scientifically construct valid, reliable, and objective tests in the various sports activities (*Johnson and Nelson*).

In the Philippines, the popularity and the inherent good values that can be derived from sports activities led the Department of Education, Culture and Sports (DECS) to include sports and games to be offered by schools, colleges and universities throughout the country (*DECS Order No. 58*). Thus, acquisition of the basic skills becomes an important aspect in teaching sports activities in the class.

In the tertiary level, particularly in Mindanao State University in Marawi City, the Department of Service Physical Education of the College of Sports, Physical Education and Recreation (CSPEAR) is responsible for the instructional program in physical education required of all students as prerequisite for graduation for an undergraduate degree title. The said department offers four (4) Physical Education (PE) subjects, namely: PE 1 – Physical Fitness and Health; PE 2 – Martial Arts/Dance; PE 3 – Individual & Dual Sports; and PE 4 -Team Sports. In PE 3, table tennis is one of the sport activities offered in PE 3 (*MSU General Catalogue*).

The basic skills in table tennis include gripping of the racket, stance or footwork, and basic strokes. Because the game is generally a stroke play, acquiring the basic strokes is the first step in learning to play the game. Once the fundamentals of the different strokes are acquired, the executions of the strokes are improved through repetitive striking of the ball.

In this study, the author believed that backboard, ball tapping, and service, are important physical activities in the acquisition of better strokes not only to win points in a game but to improve player's eye-hand coordination in making the strokes. These could be used to measure certain aspects of performance and at the same time as instructional aid and motivational device for students.

Likewise, this study was conducted to determine if performance of a player during the backboard, ball tapping, and service would influence grade performance in table tennis tournaments. The selection of the above tests were made in terms of time required to administer them, limited equipment needed, scoring, and ability to measure performance in table tennis.

Statement of the Problem

The study aimed to answer the following profile of the respondents in terms of gender religious affiliation, backboard, ball tapping, service, and performance in terms of grade in table tennis tournament.Is there a significant linear relationship between backboard, ball tapping, and service?Is there a significant linear relationship between performances in backboard, ball tapping, and service and performance in terms of grade in table tennis tournament?Is there a significant linear relationship between gender and religious affiliation and performance in terms of grade in table tennis tournament?

Is there a significant difference in the mean performances in backboard, ball tapping, and service and performance in terms of grade in table tennis tournament between male and female and between Non-Muslims and Muslims?

What function or equation can be used to predict the respondent's performance in terms of grade in table tennis tournament?

Research Methodology

Samples

The samples used in this study were based on the official classlist in PE 3 (Table Tennis) who have actually been conducted the different sport skill tests in selected PE 3 classes on different semesters. A total of 450 students were taken as the actual sample of the study: 336 out of 391 female students and 114 out 135 for the male students. Students who were absent during the conduct of the tests or dropped from the class were not taken as a sample of the study.

Research Instruments

The research instruments used in this study were divided into two (2) parts: The first part deals on the demographic profile of the respondents in terms of gender and religious affiliation. Gender is defined in the Webster's Dictionary as the quality of being of the male or female sex. In this study, it refers to the two (2) classification of the respondents: male or female. Religion is defined in the Webster's Dictionary as an organized system of beliefs, rites, and celebrations centered on a supernatural being power. In this study, religious affiliation was categorized into two: Muslim (as follower of Islam), and Non-Muslim (not a follower of Islam).

The second part deals on the test results of the following sport skills: backboard, ball tapping and service. For the instructions, equipment used, procedures in the conduct of the different tests, and scoring.

Class tournaments in table tennis were regularly held before the end of the semester wherein the class is divided into five to six groups depending on the class size. During the conduct of the tournament, round robin was used as the mode of tournament. Round robin tournament is the best type of tournament to employ. It produces a true winner, ranks the other competitors, permits all participants to continue play until the end, and does not require one contestant to wait until others have played the next round. In round robin tournament, each player plays each other competitor in the league/group. In single round robin, one game is played with each other player. The formula for determining the total number of matches to be played in a round robin tournament is $n(n-1)/2$ with n representing the number of players in a tournament. Level of performance in the class tournament was classified in terms of ranks and grades (numerical).

Statistical Tools

This study utilized a statistical software in the analyses of the data. In the descriptive analysis of the data, the following were used: mean, standard deviation, coefficient of variation, and percentile.

The numerical average of a group of numbers is the mean, which is calculated by adding all the scores and dividing by the total number of scores. Coefficient of Variation, which expresses the standard deviation as a percentage of the mean was used and can be used to compare the variability of two or more sets of data even when the observations are expressed in different units of measurement. Files on gender and ethnicity were split and analyses were made for groups (males and females and non-Muslim and Muslim) (Pallant). Mann-Whitney U Test is a technique used to test the differences between two independent groups. Mann-Whitney U Test actually compares medians. It converts the scores on the continuous variable to ranks, across the two groups. It then evaluates whether the ranks for the two groups differ significantly. In this study, the performance between the male and female, or Non-Muslim and Muslim were taken into consideration.

Correlation analysis according to Pallant is used to describe the strength and direction of the linear relationship between two variables. Pearson product-moment correlation coefficient was used in this study. Pearson correlation coefficients (r) can only take on values from -1 to +1. The sign out the front indicates whether there is a positive correlation (as one variable increases, so too does the other) or a negative correlation (as one variable increases, the other decreases). The size of the absolute value (ignoring the sign) provides an indication of the strength of the relationship. On the other hand a correlation of 0, indicates no relationship between two variables. Spearman rank order correlation (rho) was used in this study which is designed for use with ordinal level or ranked data.

Multiple regression was utilized an extension of correlation and to explore the predictive ability of a set of variables on a dependent measure and to find the best set of variables to predict a dependent variable. In this study, stepwise was used as the type of multiple regression analyses.

Results And Discussion

This study is anchored on the theory that table tennis player's level of performance in the selected sport skills of backboard, ball tapping and service among PE 3 (Table Tennis) students at the College of Sports, Physical Education and Recreation (CSPEAR), Mindanao State University in Marawi City, Philippines optimize one's performance in tournament. Simply put, better level of backboard, tapping, and service result to better performance in tournament. It also looked into how well do the selected sport skills, gender and religious affiliation predict playing performance in competition and which is the best predictor of playing performance in competition. A total of 450 students were taken as the actual samples of the study (n= 336, female; and n= 114, male). The selected sports skill tests and tournament were administered and conducted in PE 3 Table Tennis classes.

The data revealed that majority of the respondents were female (n= 336 for female; and n= 114 male). There was an almost equal distribution of the respondents in terms of religious affiliation.

Test results in backboard varied, with high percentage of 50.89% or 229 respondents obtained scores ranging from 14-25. A high percentage (41.23%) of the male respondents obtained scores between 26-37. Majority of the female respondents obtained scores ranging from 14-25 or 58.04%. Mean raw score in backboard for both males and females combined respondents is 24 which implied that most of the respondents obtained low scores in backboard. Standard deviation of the raw scores is 10.52 with a coefficient of variation of 43.83% which implies substantial variation in respondents' scores. The average scores of male respondents is higher than that of the females and vary more than those of female respondents. High percentage of the non-Muslim respondents (46.35%) and majority of the Muslim respondents (55.79%) obtained scores between 14-25 in backboard. Mean raw score of the non-Muslim is 23.44 with standard deviation score of 11.95 and coefficient of variation of 51%. The Muslim respondents' mean raw score is only a little bit higher which is 24.61 and standard deviation raw score of 8.71. The scores of non-Muslim respondents are relatively more diverse than those of Muslim respondents as indicated by a higher coefficient of variation of 51.00% and 35.40%, respectively.

A high percentage of the all the respondents or 40.67% of the respondents scored between 28-38 in service. In terms of gender, the males obtained higher scores compared to the females. Service mean score is 30.33 is less than half of the highest score obtained (72). The standard deviation of the raw scores is 10.19, while the coefficient of variation is 33.59%, which indicates that the scores in the data are highly dispersed. When categorized according to religious affiliation, 11.59% of the non-Muslim respondents scored low in service compared to the Muslims respondents with only 5.53% within the score range of 6-16. Some non-Muslims, however, obtained high scores between 50 and above (or 3.43%) compared to the Muslims with only 2.75%.

In ball tapping, the scores are almost uniformly distributed. Males, however, performed better than the female respondents with 39.47% of the males scored 55 & above. Raw mean score of ball tapping is 37.50 which is less than half of the highest score obtained (86.80); standard deviation is 18.69 and coefficient of variation is 49.84%, which indicated that the set of data is highly dispersed just like that of backboard. Across religious affiliation, 27.65% of the Muslim respondents scored between 41.90-54.90; while 24.46% of the non-Muslim respondents scored between 15.70-28.70. The mean score among the Non-Muslim respondents is 36.47 which implied that most of the respondents are below the 50% of the highest score of 86.80. The Muslim respondents' raw mean scores is quite higher. The coefficient of variation is only 26.17%, which is the lowest among the three components (backboard, service and ball tapping).

Across gender, majority of the male respondents obtained high grades of 1.0-1.5 compared to the females whose highest grade ranged between 1.75-2.25.

Grade performance across religious affiliation showed that majority (51.15%) of the Muslim students obtained high grades between 1.0-1.5 compared to the Non-Muslim with only 34.33% or 80 respondents. The mean raw score of all the respondents is 1.85, which implied that majority of the respondents got good grades in table tennis tournaments. The standard deviation of the raw score is 0.48 and coefficient of variation is 26.17%.

High significance level existed between backboard, ball tapping and service (p=0.000); strongest correlation is found between backboard and ball tapping (r=0.531), followed by backboard and service (r=0.499), then ball tapping and service (r= 0.426).

Backboard, ball tapping and service also indicated a moderate correlation (r=-0.525, r=-0.519, r=-0.51, respectively) (p=0.000) in an individual's performance in tournament which means that sports skills are attributes that influence better performance in tournament.

The correlations between gender and backboard, ball tapping and service, are moderate (r=-0.576, r=-0.325, r=-0.376); while gender and grade performance shows weak correlation (r=-0.115).

Correlations with religious affiliation are not at all significant since only backboard and grade in tournament are found to be significantly correlated with religious affiliation (r=0.120, p=0.024; r=0.203, p=0.000, respectively). The Muslim female respondents did better than the non-Muslim females but the Muslim males perform less compared to non-Muslim males. The results suggested that there is a significant difference in the backboard, ball tapping and service among the male and female respondents (level of significance < 0.05). In terms of religious affiliation, grade in tournament and backboard obtained the significance level of 0.000 and 0.016, respectively. Therefore, there is a difference in the performance in tournament and backboard among the non-Muslims and Muslims.

A standard multiple regression was performed between grades obtained in tournament as the dependent variable and the selected sports skills of backboard, ball tapping, service, gender, and religious affiliation. Stepwise regression was done to come up with a parsimonious equation for prediction. The final equation includes all the independent variables of the study including gender and religious affiliation, with an adjusted *R square of 41.40%* or it can be said that 41.40% of the variance in the independent variable is explained by the model. Model 5 is significant with Sig. < 0.001. Based on the results, in order to predict the grade in tournament in table tennis of a particular PE 3 student, the equation using Model 5 is: *Grade in Tournament = 3.003 - 0.008(Ball Tapping) – 0.015(Service) – 0.119(Religious Affiliation) – 0.009(Backboard) – 0.0170(Gender);* with: Gender: 0 = Male, 1= Female; Religious Affiliation: 0= Non-Muslim, 1= Muslim.

Conclusions

All the variables used in the skills assessments (backboard, ball tapping and service) and the variables of gender and religious affiliation contributed to prediction of the player's performance in competition. With these results, it can be deduced that sport skills are attributes that influence better playing performance in tournament or in competition. Acquiring the basic skills are important steps in learning to play the game of table tennis and eventually, achieving excellence in this sport. *Seemiller and Holowchak* (1997), however, stressed that aside from physical and mental aspects of the table tennis preparation and play, supplemental factors like nutrition, sleep, conditioning and workout recovery should also be taken into consideration.

Recommendations

It is recommended that sports skills tests should be regularly conducted and be made as required activity in the Service Physical courses and that adequate playing area should be made available to students for them to hone their skills not only during their respective class hours. Enough equipment of quality and choice should be provided by the university. Finally, further studies may be made in PE 3 classes comprising other components of motor fitness and other basic skills in table tennis.

References:

Baumgartner, Ted A., A. S. Jackson, M. T.Mahar and D.A. Rowe (2003). Measurement for Evaluation in Physical Education and Exercise Science. 7th ed. New York: McGraw-Hill Co.,Inc.

Clarke, H. Harrison and David H. Clarke. (1987) Application of Measurement to Physical Education. 6th ed New Jersey: Prentice-Hall, Inc.

Coolican, Hugh. (2004) Research Methods and Statistics in Psychology. London: Hodder & Stoughton Educational.

DECS Order No. 58, dated June 4, 1990. "Implementing Guidelines on Physical Education Program,

Johnson, Barry and Jack K. Nelson. (1979) Practical Measurements for Evaluation in Physical Education. 3rd ed Minnesota: Burgess Publishing Co.

Klafs, Carl E. and M. Joan Lyon. (1978) The Female Athlete: A Coach's Guide to Conditioning and Training. Missouri: C.V. Mosby Co.

Lacy, Alan C. and D. N.Hastad. (2003) Measurement and Evaluation in Physical Education and Exercise Science. 4th ed. San Francisco CA: Benjamin Cummings.

Leach, Johnny (1974). Table Tennis Made Easy. California: Wilshire Book Company.

Mendenhall, W. and T. Sincich. (1981) A Second Course in Business Statistic: Regression Analysis. 2nd ed. San Francisco, USA: MacMillan Publication Corp.

MSU General Catalogue, 1992. Mindanao State University, Marawi City.

Pallant, Julie. (2001) SPSS Survival Manual. Buckingham: Open University Press.

Seemiller, Dan and M. Hollowchak. [1997] Winning Table Tennis Skills, Drills and Strategies. IL: Human Kinetics. University Press.

Voltmer, Edward F., A.A. Esslinger, B.F. Mc Cue, and K.G. Tillman. (1979) The Organization and Administration of Physical Education. 5th ed. NJ: Prentice- Hall Inc.

Walpole, Ronald E. (2002) Introduction to Statistics. MacMillan Publishing Co., Inc.

Webster Dictionary. (1997) Ohio: Landoll Inc.

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Computer Game Participation In Relation To Reaction Time And Sports Skills Performance In Soccer And Volleyball

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Introduction

Computer games have been labeled upon by parents as time wasters, and worse, some education experts think that these games corrupt the brain. Playing violent video games is easily blamed by the media and some experts as the reason why some young people become violent, commit extreme anti-social behavior or fail in academics.

Many scientists and psychologists, however, find that video gamers reaped certain benefits; video games are rich sources of training and learning logical thinking; what gamers learned in the virtual world is useful in the real world. (The Positive and Negative Effects of Video Games, 2001)

Computers have transformed our society; the world has become a digital world. Time is collapsing. Distance is no longer an obstacle. Crossing oceans takes only a mouse click. Computers have influenced peoples' lives and have been considered as the most important technological achievement of the 21st century. Computers have made achievements in homes, manufacturing, medicine, sciences, mathematics, education, sports, and is now a developed billion-dollar industry in the world of entertainment.

As cited in the article of Roach (2003), video games train the brain to better process certain visual information. Action video gamers tend to be more attune to their surroundings while performing tasks like driving down a residential street, where they may be more likely to pick out a child running after a ball than a non-video gamer.

The drive for sporting excellence in elite sport has seen teams and organizations exploring alternative training practices to gain an advantage over their competitors. According to Ellison (2015) much attention has focused on training the basic visual system as one method of gaining that advantage. One of the key visual skills targeted by such programs is Eye-Hand Coordination and **Reaction Time.**

Counter Strike, DOTA or NBA 2k16 will revolutionize sports training or pave for a new sports training program. Athletes and coaches have been searching for that winning edge for years, and now found in computer games.

In the highly competitive world of sports, more and more athletes are eyeing vision-enhancing and reaction time exercises as a way to get this winning edge. In sports like baseball, softball or tennis a moving ball must be seen before it can be hit. In other sports such as basketball, soccer or football, players have to envision the entire field or court to be fully effective. The importance of our visual abilities to our sporting performance seems evident. In any sport that involves a ball, such as golf, baseball, soccer, tennis and others, if the player wanted to hit, throw, catch or kick the ball there is a need to know the direction the players wants it to travel or from where it is approaching.

An athlete's ability to react shows how quickly and effectively her or she can make decisions and initiate actions. Key strategies can accelerate the decision making process to give athletes an edge in competitive situations. Processing time is longer when there are more choices that require different actions. Delays in responses can make the difference between winning and losing.

Young athletes are physically and psychologically more adaptable to training than adults, therefore if the correct structure of training is implemented during these early adult years, their eye to hand coordination will develop into a high-level sports skill. Furthermore, the greater the variety of

sports environments that are used in these training sessions, the more competent and efficient that skill will become. Like all acquired skills, it will take practice to make perfect.

Developing eye-hand coordination for a young athlete according to Ratner (2004) is actually easier than one would think. Yes, video games are something which develop superior eye-hand coordination and something which young people do nowadays.

To take athletic training to greater heights, why not try computer games training, Counter Strike, Quake 3 or Call of Duty, the next generation of eye-hand coordination, reaction time and sports skill performance training for athletes.

The objective of this study was to look into the relationship of computer game participation and computer eye-hand coordination on reaction time and sports skills performance in soccer and volleyball among students officially enrolled in selected sport activities in PE 4- Team Sports at the Department of Service Physical Education, College of SPEAR in MSU, Marawi City, Philippines and have been actively playing computer games.

Ellison (2015) mentioned that computer metaphor is dominant in cognitive psychology, with the brain perceived as an information processing mechanism. To produce skilled performance, information-processing theorists' state that information about the environment must pass through a number of discrete stages from input to output much like a computer.

Prof. Daphne Bavelier, an associate professor of brain and cognitive sciences at the University of Rochester as mentioned in the study conducted by Roach (2003) have established that people who play action video games can process visual information more quickly and can track 30 percent more objects than non-video game players. She said that "It is certainly good training for people in situations where they need to detect things in their visual environment at any time in any location, like ground troops going through uncharted territory." The research suggested that action game playing might be a useful tool to rehabilitate visually impaired patients or to train soldiers for combat.

Mercer (2010) further mentioned that developing eye-hand coordination may enhance other life skills as linguistic anthropologist Shirley Brice Heath writes in a 2005 article published in the "Journal of Language and Literacy Education." She explained that activities such as finger-painting and clay-molding require children to look ahead and envision the object they wish to create. This skill may eventually enhance strategic thinking. Eye-hand coordination decreases with age, but certain activities and exercises may mitigate the effect.

In view of the foregoing, this study was conducted to assess the level of association or relationship of computer game participation and computer eye-hand coordination to sports skills performance and reaction time as well as to the other variables such as age and years of playing computer games.

Statement Of The Problem

The study aimed to determine the relationship between computer game participation in terms of frequency, duration, type of computer games played, and computer eye-hand coordination with reaction time and sports skills performance. Also, it looked into the influence of the variables of age, and years of playing computer games.

Specifically, it tried to answer the profile of the respondents in terms age; years of playing computer games; computer games participation in terms of frequency of playing computer games, duration of playing computer games, and type of computer games played; computer eye-hand coordination; sports skills performance in soccer goalkeeping and volleyball spiking; and reaction time.

Is there a significant relationship between age, and years of playing computer games and computer game participation and computer eye-hand coordination?

Is there a significant relationship between age, and years of playing computer games, and the variables of reaction time and sports skills performance?

Is there a significant relationship between the computer game participation and computer eye-hand coordination and the variables of reaction time and sports skills performance?

Methods

Samples

The respondents of this study were male students from the selected sport activities in the Service Physical Education classes of P.E. 4 (Team Sports) of the College of SPEAR in MSU, Marawi City, Philippines who were actively playing computer games with a total of one hundred fifty one (151) samples.

Research Instruments

The research instruments that were used in obtaining the desired data shall consist of the following: Respondent's Information and Scorecard were used to obtain data such as age, years of playing computer games, computer game participation in terms of type of computer game played, duration of computer game participation and frequency of computer game participation .

Ruler Drop Test was used to measure reaction time. 1 meter long ruler or yardstick and a calculatorwere needed to measure the said test. The results and scores of the respondents in the computer game called Scrape was taken. The objective of the test was to measure eye hand coordination using a computer. Results of the scores of each test were categorized into five (5), namely: "Very good", "Good", "Average", "Poor", and "Very Poor".

Results and scores of the respondents' sports skills performance in Volleyball spiking and Soccer goal-keeping were also recorded. In Volleyball Spiking Test, the ff. equipment were needed: volleyballs, tape measure, cone/marker. The said test was used to determine the student's eye coordination and ability to spike the ball.Soccer goalkeeping test aimed to determine the student's coordination and ability catch the ball.The equipment used in the said test weresoccer balls and a soccer goal. Results of the scores of each test were categorized into five (5) categories: "Very good", "Good", "Average", "Poor", and "Very Poor".

Statistical Analyses

The data were tabulated and analyzed using a statistical software.In analyzing the data, descriptive statistics in terms of frequency and percentage distribution were used to assess the demographic profile of the respondents. Pearson Product Moment of Correlation or Pearson ***r***, Kruskal-Wallis, and Chi Square or $\boldsymbol{x}^2$, were the statistical tools used to describe the strength and direction of the linear relationship between two variables.

Results And Discussions

Profile

Age. Majority of the respondents (97 out of 151) were between 18-19 years old. The results showed that the age of the respondents was varied. Data indicated that the respondents' age range was from 16 years old to 24 years old. The majority of the respondents (97 out of 151), however, were in the age range of 18-19 years old compared to the rest of the groups.

Years of playing computer games. A high majority of the respondents (129 out of 151) have been playing computer games for more than 4 years.

Frequency of Playing Computer Games. Results indicated that a high percentage of the respondents (50 out of 151) or 33.10% were playing twice a week, followed by 3 times a week with 36 out of 151 respondents. There were 28 respondents (18.50%) who liked to play every day. The data revealed that there were respondents who played computer games once a week to as high as on daily basis.

Duration of Playing Computer Games. A high percentage of the respondents (49.67%) played computer games for 1-2 hoursand followed by 3-4 hours with 31.13%. There were respondents, however, who played for longer hours: 5-6 hours with 20 respondents out of 151, and 9 or more hours with 3 out of 151 respondents.

Types of Computer Games Played. Types of computer played were classified into: first person shooter, sports/race game, strategy game, and role playing game. 57 out of 151 or 35.80% of the respondents preferred to play strategy games; closely followed by respondents or players who chose to play first person shooter with 54 or 35.80%.The strategy game is a video game genre that focuses on skillful thinking and planning to achieve victory. It emphasizes strategic, tactical, and sometimes logistical challenges. Strategy game is the most popular type of game like the Defence of the Ancient or DOTA which belongs to this category and is one of the most popular games in the world today. First-person shooter (FPS) is also a video game genre centered on gun and projectile weapon-based combat through a first-person perspective; that is, the player experiences the action through the eyes of the character. Both strategy game and First Person shooter are the most popular games in Mindanao State University, Marawi City Campus simply because both type of computer games do not need any internet connection to play and at the same time could be played with a maximum of 10 players (with 5 players in each team). Sports game is also a genre of computer game that simulates the practice of sports, while the racing video game is the genre of video games in which the player partakes in a racing competition with any type of land, air, or sea vehicles. This type of game has lower number of players because this game could easily be played with a minimum of 1 or 2 players only. Lastly, Role playing Game (RPG) is a game in which players assume the roles of characters in a fictional setting. Players take responsibility for acting out these roles within a narrative, either through

literal acting or through a process of structured decision-making or character development. In this study, this type of computer games had the least number of players since this type of game needs a stable and fast internet connection.

Computer Eye-hand Coordination. 46 out of 151 or 30.46% of the respondents have Good results in Computer Eye-hand Coordination ranging from 9.04-11.13 seconds.

Reaction Time. A high percentage of the respondents have an average reaction time of 0.16-0.19 seconds or 49.67%; followed by 58 out of 151 with 0.12-0.15 seconds considered as Good.

Volleyball Sports Skill and Soccer Goalkeeping Performance. Results revealed that 23 or 31.50% of the respondents have Good scores in volleyball spiking test. Also, there were 48 or 61.54% of the respondents who obtained Good scoresin Soccer Goalkeeping test.

Correlation BetweenVariables

Frequency of playing computer games, duration of playing computer games, type of computer games played, and computer eye-hand coordination indicated no significant relationships with the respondent's age [r-values0.042, -0.135, x-value 2.119, and r-value -0.012, respectively and p-values 0.610, 0.100, 0.548, and 0.883, respectively]. With these results, it could be inferred that regularity and length of time of playing computer games, any type of computer games played, and levels of computer eye-hand coordination do not bear any element with the respondent's age. Age did not show any significant relationship with duration of playing computer games [r-value-0.135 and p-value 0.100].

In terms of years of playing computer games, no correlations were shown between the variables of frequency of playing computer games, type of computer games played and computer eye-hand coordination [r-value0.119, x-value 2.2.278, and r-value 0.007, respectively and p-values of 0.114, 0.517, and 0.934, respectively]. Findings however, indicated that duration in terms of length of hours in engaging computer games is significantly correlated with years of playing computer games [r value 0.207, p-value 0.011]. The positive correlation means that the more years spent by the respondents in playing computer games, the longer the period in terms of hours are spent in playing computer games. Respondents with less number of years spent in playing computer games, however, spent less hours in playing computer games. Computer addiction starts when one open the internet browser for the first time and find something that is capable of holding his attention to what seems like only minutes, which eventually turns into hours. Defense of the Ancient (DOTA) is one of the major time consumers. This game is fueling internet-goers urges to stay online with promise of more in-game currency and experience points.

Age and years of playing computer were not significantly related to sports skills performance [r-values -0.112 and -0.066 and p-values 0.170 and 0.424]. Typically, when a person is older than others in a group, that person is often perceived as more talented than the younger players on the team. That statement however, refutes the findings of this study. In this study, younger players tend to show better sports skill performance compared to the older ones. The only way to improve sports skills performance is by practicing the related skills in a chosen sport.

Age and years of playing computer games showed insignificant effect to reaction time [r-values -0.098 and 0.075 and p-values 0.230 and 0.361]. In this study, the variables of age and years of computer game participation do not affect a person's reaction time performance.

Results for the test statistic for significant relationships between the independent variables of frequency of playing computer games, duration of playing computer games, and type of computer games played and dependent variable of sports skills performance showed no significant relationships [r-values0.028, -0.042, x2-value 4.569; p-values 0.732, 0.605, and 0.206]. These would mean that regardless of the frequency of playing computer games, duration of playing computer games, and type of computer games played and sports skills performance are not directly related and that frequency of playing computer games, duration of playing computer games, and type of computer games played would not determine sports skills performance.

Significant relationship, however, was viewed between computer eye-hand coordination and sports skills performance; [r-value 0.173] showed a slight positive linear correlation [p-value 0.034]. This finding implied that the level of computer eye-hand coordination of the respondents affects the sports skills performances of the respondents. It revealed that as the level of computer eye-hand coordination of the respondents gets higher, the reaction time also increases or vice versa. Meaning, respondents that have high computer eye-hand coordination results tend to have higher results in sports skills performance and reaction time.

Frequency of playing computer games, and duration of playing computer games showed no significant relationships between reaction time [r-values-0.121 and -0.175, and p-values 0.138 and 0.357]. This means that regardless of the number of days in a week and the extent of time the respondents played computer games, would not affect its reaction time.

There is a statistically significant difference in reaction time across the four (4) groups of type of computer games played with significance level 0.008. An inspection of the mean ranks for the groups suggested that the respondents who played as First Person Shooter have the highest reaction time, with the Strategy Game reporting the lowest.

Reaction time also revealed a statistically significant difference when compared across the different categories of computer eye-hand coordination. It revealed a significance level 0.000 which suggested that there is a difference across the various groups of computer eye-hand coordination by the respondents. An assessment of the mean ranks for the groups suggested that the respondents whose computer eye-hand coordination ranged between 11.14-13.23 seconds have the highest reaction time, with the score range of 2.74-4.83 seconds as the lowest.

Conclusions

Majority of the samples were 18-19 years old and playing computer games for more than 3 years. A high percentage of the respondents played twice a week. Results also revealed that a high percentage of the respondents played computer games for 1-2 hours although a few played for 9 or more hours. More respondents preferred to play strategy games compared to the other types of computer games.It revealed that respondents have Good resultsin Computer Eye-hand Coordination from 9.04-11.13 seconds.

In Volleyball Spiking test, the Lowest score is 1 and the perfect score is 20. Results revealed that 23 or 31.50% of the respondents have Good scores in the volleyball spiking test; and 19 or 26.03% with Very Good. No respondent had a Very Poor score or Zero. The lowest possible score of the Soccer Goalkeeping test is 0 and the perfect score is 10. Results revealed that 48 or 61.54% of the respondents have Good score in the Soccer Goalkeeping test. A high percentage of the respondents have a reaction time of 0.16-0.19seconds or average with 49.67%.

The correlation between age with the variables of frequency of playing computer games, duration of playing computer games, type of computer games played and computer eye-hand coordination indicated no significant relationships. Therefore, the null hypothesis which stated that there is no significant relationships between age and the variables of frequency of playing computer games, duration of playing computer games, type of computer games played and computer eye-hand coordination indicated no significant relationships with the respondent's age, is accepted.

The correlation of years of playing computer games withthe variables of frequency of playing computer games, type of computer games played and computer eye-hand coordination indicated no significant relationship. Duration of playing computer games, however, was found to be significantly correlated with years of playing computer games. Thus, the null hypothesis which stated that there is no significant relationships between years of playing experience and the variables of frequency of playing computer games, type of computer games played and computer eye-hand coordination is accepted. It is however, rejected with duration of playing experience. The positive correlation means that the more years spent by the respondents in playing computer games, the longer the period in terms of hours are spent in playing computer games.

The correlation of age and years of playing computer games with the variable of sports skill performance were not significant to sports skills performance. Age and years of playing computer games correlated to reaction time showed insignificant effect to reaction time. For these results, accept the hypothesis which stated "There is no significant relationship between age, and years of playing computer games, and the variables of reaction time and sports skills performance."

The correlation between the moderating variables of frequency of playing computer games, duration of playing computer games, and type of computer games played and dependent variable of sports skills performance showed no significant relationships. Significant relationship, however, was viewed between computer eye-hand coordination and sports skills performance.The correlation between variables of frequency of playing computer games, type of computer games played and computer eye-hand coordination of the respondents from the volleyball class respondents indicated no significant relationships with the respondent's age. Therefore, the hypothesis that frequency of playing computer games, type of computer games played and computer eye-hand coordination of the respondents from the volleyball class respondents is accepted. However significant relationship was viewed on the variables of age and duration of playing computer games among respondents from volleyball. Therefore, the hypothesis that there is no significant relationship between age and duration of playing computer games among respondents from volleyball is rejected.

Frequency of playing computer games, duration of playing computer games, type of computer games played and computer eye-hand coordination of the respondents indicated no significant relationships with the respondent's age. Therefore, the hypothesis that there is no significant relationship between age and frequency of playing computer games, type of computer games played

and computer eye-hand coordination on soccer goalkeeping indicated no significant relationships with the respondent's age is accepted. However, significant relationship was viewed on the variables of Years of playing computer games and duration of playing computer games among respondents from soccer class. Therefore, the hypothesis of years of playing computer games and duration of playing computer games on soccer goalkeeping is rejected.

Age and years of playing computer games and volleyball spiking performance and reaction time showed no significant relationships. Therefore, the hypothesis that there is a significant relationship between age and years of playing computer games and dependent variable of spiking performance and reaction time is accepted.

There were also no significant relationships between the moderating variables of age and years of playing computer games and dependent variable of Soccer Goalkeeping performance and reaction time showed no significant relationships. Therefore the hypothesis that there is no significant relationship between age and years of playing computer games and dependent variable of Goalkeeping performance and reaction time is accepted.

The correlation between playing computer games and duration of playing computer games indicated no significant relationship with the respondents Volleyball Spiking performance, Soccer Goalkeeping performance and reaction times. There were also no significant relationship was viewed between Type of computer games played and Volleyball Spiking performance and reaction time. Therefore, the hypothesis that there is no significant relationship between playing computer games and duration of playing computer games among volleyball and soccer respondents and reaction time is accepted. However, significant relationship was presented by the computer eye-hand coordination and reaction time of the volleyball respondents. Therefore, the hypothesis that there is no significant relationship was a presented by the independent variable of Computer Eye-Hand Coordination and reaction time of the volleyball respondents is rejected. Significant relationship was viewed on type of computer games played and goalkeeping performance. There were also significant relationship between Computer eye-hand coordination and the dependent variables of Goalkeeping performance. Therefore, the hypotheses that there is no significant relationship was viewed on type of computer games played and goalkeeping performance. There is no significant relationship between computer eye-hand coordination and Soccer Goalkeeping performance.

Recommendations

Based on the findings, the researcher offers the following recommendations:

It was revealed in this study that Computer Eye-hand coordination have significant relationship between Sports Skills Performance and Reaction Time. It is therefore recommended to include Computer Eye-Hand Coordination Test in the Physical Assessment Tests.The findings of the study could be made as bases in formulating new training methods and could also be used in identification and selection of potential athletes by requiring them to undergo computer eye-hand coordination test.The samples involved in this study were P.E. 4 male students and mostly were non-experienced or beginners in the selected sports activity (Volleyball and Soccer). It is then recommended that further similar studies shall be conducted to include elite athletes to compare test results among non-athletes and elite athletes. A follow-up research among female respondents might be interesting to provide additional information and can be utilized for comparison in the different test results in eye-hand coordination and reaction time.Lastly, other sports activities that require eye-hand coordination and reaction time such as: Softball, Tennis, Table Tennis, Badminton should be looked into for future studies.

References

Abernethy, B. (1996). Training the visual-perceptual skills of athletes - Insights from the study of motor expertise. American Journal of Sports Medicine.

Abernethy, B. and Wood, J. M. (2001). Do generalized visual training programs forsport really work? An experimental investigation. Journal of Sports Sciences.

Baumgartner. T. A., A.S. Jackson, M.T. Mahar, and D.A. Rowe. (2003). Measurement forEvaluation in Physical Education and Exercise Science. 7thed. New York: McGraw- Hill Co., Inc.

Beckerman, S. and Hitzeman, S. A. (2003). Sport's vision testing of selected athletic participants in the 1997 and 1998 AAU. Journal of Olympic Games. Journal of Optometry.

Calderon, J.F. and Gonzales, E. (2004). Methods of Research and Thesis Writing. Manila: National Book Store, Inc.

Chuang, T.Y. and W. F. Chen. (2007). Effects of Digital Games on Children's Cognitive Achievement. Journal of Multimedia.

Coolican, H. (2004). Research Methods and Statistics in Psychology. 4thed. London: Hodder and Stoughton.
Computers Effect Our Usual Life (2004). Retrieved May 2, 2013 from http://.oppapers.com/essays/Computers-Effect-Our-Usual-Life/45408
Computer Games. Retrieved May 2, 2013 from http://softforyou.com/articles_tutorials/computer_video_games
Cortes, Maria Daisy S., Alcalde, Jhoana V., Camacho, Jose V. Jr. (2013).
Effects of Computer Gaming on High School Students Performance in Los Banos, Laguna, Philippines. Osaka University Knowledge Archive.
Do Video Games Improve Reaction Times (2014) Retrieved May 22, 2016 from http://thoughty2.com/p/86/do-video-games-improve-reaction-times
Ellison, P. H. (2015). Eye-Hand Coordination: An Exploration Of Measurement And Different Training Methods Using The Svt™. Doctoral Thesis, Edge Hill University. Retrieved Feb. 18, 2016 from http://repository.edgehill.ac.uk/ 6465/1/Ellison_Paul_-_Thesis_-Final_2015.06.16.pdf
History of Computer Games. (n.d) February 13, 2016 fromhttp://technologizer.com/2011/12/11/computer-space-and-the-dawn-of-the-arcade-video-game/
How Video Games Have Changed and Influenced Our Lives. (2011). Retrieved Feb. 18, 2016 from http://hubpages.com/games- hobbies/Video-Games-Have-Changed-the- World
Jafaradehpur, E. andYarigholi, M.R. (2004). Comparison of visual acuity in reduce lamination and facility of ocular accommodation in table tennis champions and non players. Journal of sports science and medicine.
Lacy, A. C. and D. N. Hastad. (2003). Measurement and Evaluation in Physical Education and Exercise Science. 4thed. San Francisco, CA: Pearson Education Inc.
Lauren Silberman .Athletes' use of sport video games to enhance athletic performance (2009). Retrieved April 27, 2016 from http://cmsw.mit.edu/athletes-use-of-sport-video-games
Mandora, S (2011). Are Video Games Good for You? Retrieved February 21, 2016, http://buzzle.com/articles/are-video-games-good-for-you
Mcgonigal (2006). The modern parents guide to kids and video games. Retrieved February 21, 2016,fromhttp://videogamesandkids.com/The%20Modern%20Parents%20Guide%20to%20Kids%20and%20Video%20Games.pdf
Mercer, L. (2010**).** The Importance of Hand-Eye Coordination. Retrieved February 16, 2016 from http://www.livestrong.com/article/252448-the-importance-of-hand-eye-coordination/
Negative Effects of Computer Gaming.February 13, 2016 fromhttp://raisesmartkid.com/3-to- 6-years-old/4-articles/34-the-good-and-bad-effects-of-video-games
Oak, M. (2015) Benefits of video games. Retrieved Feb. 18, 2016 from http://.buzzle.com/articles/benefits-of-video-games
Palana, P., Rabacio, J. Maralit, M. and Andrade, N. (2013). The Effects of Computer Addiction to the Academic Performances of Mapua Institute of Technology First Year Students. Retrieved Feb. 18, 2016 from http://studymode.com/essays/Affect-Of-Computer-Games- To-Mapua-56878578
Pallant, J. (2001). SPSS Survival Manual. A Step By Step Guide to Data Analysis Using SPSS. Illinois, USA: Open University Press.
Roach, J. (2003). **Video Games Boost Visual Skills, Study Finds**. Retrieved Feb.18, 2016 from http://news.nationalgeographic.com/ news/2003/05/0528_030528_videogames
Ruler Drop Test. (n.d) Retrieved February 22, 2016 from http://topendsports.com/ testing/tests/reaction-stick
Shields, M. andR. Behrman (2000). **Children and Computer Technology**. Retrieved May 1, 2015 from http://.futureofchildren.org/publications/journals/article
Stromberg, J. (n.d.). Computer/video games and your child's health. Retrieved Feb. 18, 2015 from http://softforyou.com/ articles_tutorials/computer_video_games
The Positive and Negative Effects of Video Games. (2011). Retrieved February 18, 2016 from http://raisesmartkid.com/3-to-6-years-old/4- articles/34- the-good-and-bad- effects-of-video-games
Tone, J. (n.d.). **History of Computer Games**. Retrieved February 18, 2016 fromhttp://webcache.googleusercontent/search?q=cache:http://jjtone/joel/hist_comp_games
Vision testing and visual training in sport (2015). Luke Wilkins. Retrieved April 27, 2016 from http://etheses.bham.ac.uk/6313/1/wilkins15phd.pdf
Wegener.R., Bader, F. and Schmid U. (2007). Video Games can Improve Performance in Sports–An Empirical Study with Wii TM Sports

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Effect of Weight Training for Development of upper body muscle strength and endurance among Rowers of Osmania University, Hyderabad

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Introduction:
Weight training is a common type of strength training for developing the strength and size of skeletal muscles. It uses the weight force of gravity (in the form of weighted bars, dumbbells or weight stacks) to oppose the force generated by muscle through concentric or eccentric contraction. Weight training uses a variety of specialized equipment to target specific muscle groups and types of movement. Sports where strength training is central are bodybuilding, weightlifting, power lifting, and strongman, Highland games, shot-put, discus throw, and javelin throw. Many other sports use strength training as part of their trainingregimen,notably; mixedmartialarts, Americanfootball, wrestling, rugbyfootball, trackandfield, ro wing, lacrosse, basketball, baseball and hockey. Strength training for other sports and physical activities is becoming increasingly popular.

Rowing, often referred to as crew in the United States, is a sport with origins back to Ancient Egyptian times. It is based on propelling a boat on water using oars. By pushing against the water with an oar, a force is generated to move the boat. The sport can be either recreational, where the focus is on learning the technique of rowing, or competitive, where athletes race against each other in boats. There are a number of different boat classes in which athletes compete, ranging from an individual shell (called a single scull) to an eight-person shell with coxswain (called a coxed eight).

Osmania University Rowers in Action

Methods and Materials:

The sample for the present study consists of 20Male Rowers of Osmania University out of which 10 are experimental group and 10 are controlled group between the age group of 18-21 Years.Weight training exercises are given Three times a week for six weeks for experimental group of Rowers and controlled group were given general training of rowing

The following are the strength training exercises were given three times a week for six weeks to the experimental group Rowers.

Biceps Curls,Triceps Curls,Bench Press,Back Press,Bent Over Rowing,Up right Rowing,Wrist Curls
Half Squats,Full Squats,Dead Lifts,Good Morning,Side Wards Bend,Heel raising with weights
Leg Press,Push ups,Sit Ups,Dumbell Exercises

The above exercises used as per the requirement in the three sessions in a week. The controlled group were given general training of Rowers

To assess the Shoulder Strength the Pre Test and Post Test the following test were conducted

1.Pull Ups.

Results and Discussion:

The results of the study shows that Rowers of Experimental group has increased in Shoulder Strength due to Strength Training Exercises compare to Rowers Control group which does the general training of Rowing

Table I:Mean values and Paired Samples Statistics of Pull Ups between experimental and control groups of Rowers of Osmania University

Variables	Group	Pre Test Mean ± SD	Post Test Mean ± SD	t	Sig.(2tailed)
Pull Ups Test	Experimental	8.33±.479	12.73±.868	-31.293	.000
	Control	8.27±.450	7.80±.714	-4.474	

*Significant at 0.05 level

The Mean Performance of Experimental Group in Pull Ups in Pre Test is 8.33 there is improvement in performance to 12.73 in Post Test. That Means Experimental group has improved 4.40 due to the strength Training Exercises in the mean from Pre Test to Post Test.The Mean Performance of Control Group in Pull Ups in Pre Test is 8.27 there is decreasement in performance to 7.80 in Post Test. That Means Experimental group has decreased to 0.47 due to the strength Training in the mean from Pre Test to Post Test

Conclusions:

It is concluded that due to the strength training that Shoulder Strength has increased among the rowers. Rowing is the all body exercises which includes gluteus, core, shoulder, arms etc. Strength Training is compulsory in Rowing Event.

Recommendations:

It is recommended that similar studies can be conducted on other events in athletics and also female Rowers. This type of study is useful to coaches to give proper coaching for development of motor qualities for improvement of performance in Water sports.

References:

Wikipedia, Strength Training and Rowing
www.topendsports.com

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Importance of fitness among Women in Regular Life

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Introduction:

Physical activity is important for every body, including all teenagers, but especially for girls who are generally less activity than boys the same age. The American College of Sports Medicine and the U.S. Centers for Disease Control and Prevention recommend that a teenager spend at least 30 minutes doing some type of physical activity each day. Unfortunately, physical activity seems to diminish for many when they reach the teenage years.

correct nutrition, exercise, hygiene and rest.

The five important components of physical fitness

1. Cardiovascular Fitness - Cardiovascular fitness (also known as cardiorespiratory fitness) is the ability of the heart, lungs and vascular system to deliver oxygen-rich blood to working muscles during sustained physical activity

.

2. Muscular Strength - Muscular strength is the amount of force a muscle or muscle group can exert against a heavy resistance.

3. Muscular Endurance - Muscular endurance is the ability of a muscle or muscle group to repeat a movement many times or to hold a particular position for an extended period of time.

4. Flexibility - Flexibility is the degree to which an individual muscle will lengthen.

5. Body Composition - Body composition is the amount of fat in the body compared to the amount of lean mass (muscle, bones etc.

Discussion:

Physical Exercises for Women

1) Cardiovascular Exercises

Cardiovascular exercise is any type of exercise that increases the work of the heart and lungs. Typical forms of cardiovascular activities include walking, jogging, step aerobics, swimming, and biking. Cardio activity improves your heart/lung function and muscle mass; it's a lot about endurance and is often called cardiovascular endurance.

2) Resistance Exercises

Resistance exercises cause your muscles to contract against an external resistance such as weights, rubber bands, your own body weight, bottles of water, or any other object that causes the muscles to contract. Resistance exercises focus on your muscles and may include weight lifting, certain yoga postures and floor exercises.

3) Flexibility Exercises

Flexibility is about your range of motion and is required in your daily activities such as walking, bending, lifting, driving, etc. Stretching and yoga help achieve greater flexibility; stretching also helps with good posture and can reduce the risk of injury.

4) Balance Exercises

Balance training focuses on the communication between your mind and your muscles that allows the body to remain stable; it's a lot about coordination. Balance helps prevent injuries, allows us to perform daily activities, and provides the foundation for cardio, resistance, and flexibility training. Balance should not be taken for granted. Balance training may include yoga, Tai Chi, outdoor biking and hiking, and specific exercises like standing on one foot.

Benefits of Physical fitness for women

1.Increased Strength,Stamina and flexibility.
2.Helps maintain a healthy body weight.
3.Improves fitness and heart health.
4.Decreased incidence of stress and depression
5.Increased self esteem
6.Positive body Image
7. Mental and Emotional Development.
8. Physiological and Psychological development

Common Barriers:

1.Copying the behavior of their physically in active parents.
2. Lack of energy due to poor physical fitness.
3. Myth of girls cannot do exercise and play sports.
4. Peer Pressure
5. Lack of facilities and coaches for girls.
6. Fear of being teased.
7. Embarrassment to do physical exercises on sports dress.

Conclusions and Recommendations:

Physical exercise are essential in promoting the stay fit and good health along with physical,mental, emotional and social development.

References:

www.better health Channel
www.Live strong.com
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Effect of Yogic Practices and Brisk Walking on Physiological Variables among Men

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Introduction:

Hypertension or High Blood Pressure is the scourge of the modern life style. It is aptly called 'the silent killer', because it can be present for years without any perceptible symptoms. Hyper tension is not a disease, but is symptom itself. In most cases, hypertension produces no symptoms until dangerous complications occur. However, there are some symptoms that are considered to indicate the presence of high blood pressure. Headaches may be experienced due to elevation in blood pressure. Sometimes morning headaches can also be due to hypertension. Dizziness is often experienced by people with high blood pressure. Heart pain, palpitations, nose bleeds, difficulty in breathing, tinnitus (ringing or buzzing in the ears), blurred vision and frequent urination are some of the symptoms of high blood pressure.Blood pressure that is too low is known as hypotension. Hypotension can cause symptoms like dizziness, fainting, or in extreme cases, shock. When arterial pressure and blood flow decrease beyond a certain point, the perfusion of the brain becomes critically decreased (i.e., the blood supply is not sufficient), causing lightheadedness, dizziness, blackouts, weakness or fainting.

The term blood pressure usually refers to the pressure measured at a person's upper arm. It is measured on the inside of the elbow at the brachial artery, which is the upper arm's major blood vessel that carries blood away from the heart. A person's blood pressure is usually expressed in terms of the systolic pressure over the diastolic pressure, for example 120/80. If hypertension or high blood pressure persists, it can cause strokes, heart attacks, heart failure and arterial aneurysms, and is a leading cause of chronic renal (kidney) failure. Even moderate elevation of arterial pressure leads to shortened life expectancy. At severely high pressures, mean arterial pressures 50% more than above average, a person can expect to live no more than a few years unless appropriately treated. Walking can reduce blood pressure considerably.

Another important ill effect of sedentary lifestyle is stress. Stress can be defined as the body's reaction to a change that requires a physical, mental or emotional response. Signs of stress may be cognitive, emotional, physical or behavioral. Signs include poor judgment, a general negative outlook, excessive worrying, moodiness, irritability, agitation, inability to relax, feeling lonely, isolated or depressed, aches and pains, diarrhea or constipation, nausea, dizziness, chest pain, rapid heartbeat, eating too much (binging) or not enough, sleeping too much or not enough (insomnia), social withdrawal, procrastination or neglect of responsibilities, increased alcohol, nicotine or drug consumption, and nervous habits such as pacing about, nail-biting and neck pains.

Arizona State University (2014), "reported that the brisk walking certainly helps lower the Blood pressure i.e. Systolic and Diastolic Blood pressure.

Methodology:

The purpose of the study was to determine the Effect of Three Months Brisk Walking and yogasanas on selected Physiological Variables of 50 – 55 years Men.To attain the purpose of this study, 60 (sixty) men those who are attaining superannuation in Government service were selected randomly from the group of 75 members (seventy five) 55 to 60 years age group Government employees. They were examined by a qualified medical practitioner and were found to be medically and physically fit to take part in the training program which was designed according to the study. The subjects were Government employees of different sectors in Anantapuramu town and they were considered as homogenous group because, there were no difference in routine life pattern. The selected subjects (N=60) were divided in to three groups equally and randomly i.e. Experimental Group – I underwent brisk walk training, Experimental group – II underwent Yogasana's practices and Group III is called as Control Group. The 2 experimental groups were engaged with their respective training protocols for one hour per day and these activities according to the groups were restricted three days per week for sixteen weeks. The following Physiological Variables were taken for study:

Systolic Blood Pressure and Diastolic Blood Pressure.

Results and Discussion

SUMMARY OF MEANS AND STANDARD DEVIATIONS OF PRE AND POST TESTS ON SYSTOLIC BLOOD PRESSURE OF YOGASANA GROUP, BRISKWALK GROUP AND CONTROL GROUP

Tests		Yogasana Group	Brisk Walking Group	Control Group
Pre Test	Mean	127.78	129.7	130.1
	Standard Deviation	12.10	7.4	9.2
Post Test	Mean	122.5	121.2	126.2
	Standard Deviation	4.72	2.21	8.09
Adjusted Post Test		122.08	120.08	124.8

The statistical analysis of Systolic Blood Pressure (SBP) from the table shows that the pre – test means of yogasana's group, brisk walking group and control group are 127.78, 129.7 and 130.1 respectively.

The statistical analysis of Systolic blood pressure (SBP) from the table shows that the pre – test Standard deviation of Yogasana's, brisk walking and control group are 12.10, 7.4 and 9.2 respectively.

The statistical analysis of systolic bold pressure from the table shows that the post – test mean of yogasana's, brisk walking and control group are 122.5, 121.2 and 126.2 respectively.

The statistical analysis of Systolic blood pressure from the table shows that the post test standard deviation of yogasana's, brisk walking and control group are 4.72, 2.21 and 8.09 respectively.

The statistical analysis of systolic blood pressure from the table shows that the adjusted post test means of yogasana's, brisk walk and control group are 122.08, 120.08 and 124.8 respectively.

SUMMARY OF MEANS AND STANDARD DEVIATIONS OF PRE ANDPOST TESTS ON DIASTOLIC BLOOD PRESSURE OF YOGASANA GROUP, BRISKWALK GROUP AND CONTROL GROUP

Tests		Yogasana Group	Brisk Walking Group	Control Group
Pre Test	Mean	84.1	85.6	85.5
	Standard Deviation	5.3	5.17	4.01
Post Test	Mean	79.05	80	84
	Standard Deviation	4.07	2.8	3.02
Adjusted Post Test		78.8	78.45	83.03

The statistical analysis of Diastolic Blood Pressure (DBP) from the table shows that the pre – test means of yogasana's group.The statistical analysis of Diastolic Blood Pressure (DBP) from the table shows that the pre – test means of yogasana's group, brisk walking group and control group are 84.1, 85.6 and 85.5 respectively.

The statistical analysis of Diastolic blood pressure (DBP) from the table shows that the pre – test Standard deviation of Yogasana's, brisk walking and control group are 5.3, 5.17 and 4.01 respectively.

The statistical analysis of Diastolic bold pressure from the table shows that the post – test mean of yogasana's, brisk walking and control group are 79.05,80 and 84 respectively.The statistical analysis of Diastolic blood pressure from the table shows that the post test standard deviation of yogasana's, brisk walking and control group are 4.07, 2.8 and 3.02 respectively.The statistical analysis of Diastolic blood pressure from the table shows that the adjusted post test means of yogasana's, brisk walk and control group are 78.8, 78.45 and 83.03 respectively.

Conclusions:

It is concluded that due to Yoga exercises and Brisk walking there is decreased in Systolic and Diastolic Blood Pressure among Men.

Reccommendations:

This type of Study is useful to the general public to reduced the Blood Pressure.

References:

M.Valamathi, Dr.Saroja (2017), "concluded that due to the effect of brisk walking and yoga practices the diastolic blood pressure of the subjects is significantly changed".

Debble L Cohen,(2013), "Diastolic blood pressure was reduced due to the effect of regular brisk walking physical activity as well as regular practicing of yogic postures".