Volume - 26 No. 1
QUARTERLY
April 2017 to June 2017

International Federation of Physical Education, Fitness and Sports Science Associations
www.ifpefssa.org

IFCSS

ISSN 2231-3265
(Online and Print)

International Journal of Health, Physical Education & Computer Science in Sports

UGC APPROVED JOURNAL

A Peer Reviewed (Refereed) International Research Journal

Published by :
Indian Federation of Computer Science in Sports
www.ijhpecss.org & www.ifcss.in

Publication Impact Factor I2OR 3.565
ISRA Journal Impact Factof 3.579
Index Journal of

J-Gate
Largest E-Journal Gateway

ISRA JIF

I2OR

DRJI

Publisher:
Indian Federation of Computer Science in sports
www.ijhpecss.org and www.ifcss.in
under the auspices of
International Association of Computer Science in sports
Email:rajesh2sports@gmail.com

International Journal of Health, Physical Education and Computer Science in sports ISSN 2231-3265 (On-line and Print) Journal Impact factor is 3.565.Journal published Quarterly for the months of March, June, September and December. IJHPECSS is refereed Journal.Index Journal of Directory of Research Journal Indexing, J-Gate, 120R etc

International Journal of Health, Physical Education and Computer Science in Sports is multidisciplinary peer reviewed journal, mainly publishes original research articles on Health, Physical Education and Computer Science in Sports, including applied papers on sports sciences and sports engineering, computer and information, health managements, sports medicine etc. The International Journal of Health, Physical Education and Computer Science in sports is an open access and print International journal devoted to the promotion of health, fitness, physical Education and computer sciences involved in sports. It also provides an International forum for the communication and evaluation of data, methods and findings in Health, Physical education and Computer science in sports. The Journal publishes original research papers and all manuscripts are peer review. . Index Journal of Directory of Research Journal Indexing and J-Gate etc/ The Indian Federation of Computer Science in Sports has been set up the objectives of Dissemination of scientific knowledge concerning computer science in sport and Physical Education. Providing a forum for the exchange of ideas among the Physical Educationists,Coaches,Sports Experts Etc. It is a Peer Reviewed(Refereed) International Research Journal.It is Approved by University Grants Commission(Sr.5033) Government of India.

CONTENTS

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp1-4
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Factors That Hinder The Development And Promotion Of Youth Football Team Players In To The Main Club: The Case Of Bahir Dar Kenema "B"Football Team

Haileyesus Bazezew Belete
Debre Markos University (Mac in football coaching)

Abstract
The study was conducted in Bakir Dar Kenema youth football team. The main purpose of this study was to find out the factors that hinder the promotion of youth football team players in to the main club in Ethiopian supper league. the team consists of 23 players and 1 coach and researcher select whole players and coach by purposive sampling technique as the participant of the study and previous Coach(3), Players families (23), administrative staff of the main club(4) were also selected by using purposive sampling technique as the participants of the study. "Purposive sampling technique was employed to select samples, because as professionals and direct participant of the study group they were supposed to give necessary and relevant information for the study". Total of 54 participants were involved in the study. The major instruments in this study were questionnaires, interview, and observation as well as focused group discussion. The questionnaires were administered for players, current and previous coaches of Bahir Dar Kenema youth football team, families of the players. To consolidate the information obtained from the questionnaire, semi-structured interview was conducted with main team administrator and randomly selected players and coaches and focused group discussion with players, coach and team administrators, observation in a training program of the team were used. In this study descriptive survey method was employed. The data gathered through questionnaires were analyzed by using quantitative data analysis methods; whereas the data gathered through interview, observation were analyzed through qualitative analysis method as descriptive statements. The major findings include absence of the training materials, equipments and facility, absence of sufficient coaching staff in the team, less participation of parents in the team, less attention of the team administrators towards youth football developments, improper training method of the team, All this factors are affect the development and promotion of Bahir Dar kenema youth football team in to the main club.
Key words; youth, development, youth training

Background of the Study

Preparing youth footballers to the main club is very important to the sustainability and succession of the team by giving proper attention to the development of youth soccer players and gives a chance to play with the main club. To get good players the team should give a proper training to the athletes in the area of fundamental techniques and tactic of soccer game, psychological and emotional ability of the athletes, and also give proper physical fitness training to the athletes(Reilly & Williams, 2003) . For this reason highly organized and well structured youth soccer training program is vital to the development and the contribution of youth team players to the main club.

According to (FIFA coaching manual, n.d.P. 1) While children's engaging in football the training to prepare youngsters for the game is primarily through games and coordination exercises with ball, a considerable amount of work still has to be achieved with the development and education of tomorrow's youth players while they are at their "building" stage, the age of pre- training/pre-development, that is 11 or 12 to 15 years of age. This is the "golden age" for developing technical skills, as well as the tactical and even psychology skills such as concentration, self-confidence and also tactical awareness and the fundamental principles of the game are trained at this age. Several players today have achieved their prominence because of the training that they received at their golden age, (FIFA coaching manual, n.d.).

Children now tend to start specific sports training in specialized environment at a younger age than in previous years. Therefore it is widely recognized that Training of youth football program is the base and the main source for a club and the future new successor players will be equipped with the fundamental components as technical, tactical, physical and psychological demands of the modern football. So, highly organized and well-structured youth football training program is crucial and critical(Snow, 2012).

Age appropriate training is crucial at each age group to much the activities to their abilities, needs and individual characteristics. The game must be enjoyable for the players in order to keep their enthusiasm high so they continue to the junior level and need to be a purpose.; Thus, because of its impact on the development of youth football players and their upgrading and contribution to generate new successor players in relation to their performance should be give due attention(Dr. Thomas Fleck, Dr. Ronald W. Quinn, Dr. David Carr, William Buren, 2008).

For the development of youth footballers to be successful in their sportive participation family also have a vital contribution Sallis et al., 1999 states that both parents' exercise patterns and encouragement have an effect on children's exercise behavior, and that physically active parents tend to have physically active children Thus, youth sport experiences can provide opportunities for personal growth and development that extend beyond the physical domain to athletes' psychological processes Boixadós et al., 2004; Müller and Sternad, (2004). To support this idea Horn (2007) says most young athletes believe that their parents provide them with a supportive, stable, secure and encouraging environment so that the coach should be incorporate the players family in his or her program because the role of parents for the development of youth football players is crucial.

Clubs that produce quality players who are suitable and fit with the modern football, and competent in national as well as international level, in this regard Bahir Dar Kenema football club have youth team for the previous five years in the sense to supply the quality players to the main club in Ethiopian super league, but they did not give chance to a players from youth team in to the main club of. In this regard this study investigated the factor that hinder the development and promotion of Bahir Dar Kenema youth football players in to the main club in Ethiopian Spur league.

RESERCH DESIGN AND METODOLOGY:- This section of the thesis deals with the research design, data sources, sample and sampling techniques. It also presents the instrument of data collection and methods of data analysis.

Research design and sources of data :- The purpose of this study is to investigate factors that hinder the development and promotion of youth football team players in to the main club in the case of Bahir Dar Kenema. Thus, to attain this purpose the research will employ descriptive survey. Quantitative data will be collected mainly through questionnaire and interview, focus group discussion, game observation and document analysis will be employed to collect qualitative data.

Participants of the study:- Bahir Dar Kenema youth team consists 23 players and one coach to collect the relevant data the researcher select whole players, four previous and current coaches of the team, four team administrator of the main club, 23 parents of youth players were the participant of the study. In this study the researcher uses purposive sampling technique to select the participants. All in all 54 participants were actively involved.

Data collection instruments:- To collect the relevant data from the participants the researcher were use questionnaire, interview and observation as data collection instruments.

Data analysis methods:-In this study both qualitative and quantitative data analysis methods have been used. The data gathered from cloth ended questions were analyzed quantitatively through descriptive (percent) statistics methods on the other hand data collected through open ended questions, interviews, observation and focused group discussions were analyzed qualitatively by descriptive statements.

Results and Discussion :-

The researcher rise question in relation to the comfortabelity of the field and sufficient raining equipment like cones, hurdles, robs , ball and others 100% of respondents (players) responded that the playing ground is not comfortable to practice the training given by the coach and have no sufficient training equipments to train different individual techniques in this regard (Lyle, 2005) and (Gareth Stratton, Thomas Reilly, A.Marks, 2004) recommend that; every player should have a ball to use at every practice. (Dr. Thomas Fleck, Dr. Ronald W. Quinn, Dr. David Carr, William Buren, 2008)also suggested that Quality coaching and facilities will contribute positive role to the development of player. In relation to training methodology of the coaches researcher ask question about psychological training All respondent players responded that they didn't take regular psychological training by the professionals.

According to (Dr. Thomas Fleck, Dr. Ronald W. Quinn, Dr. David Carr, William Buren, 2008) psychological training is one of the four pillar of soccer training so the team should incorporate psychological training as one part of youth soccer training other ways the players are improblem of playing by managing their psychological stabilities. In addition to this the majority of the respondents 60% did not get individual feedback after the training and the actual game situation the respondent gives the reason for this is because of the team do not have assistant and other coaching staff due to this reason the coach give general feedback with others team players this may affect the positive relation between coach and players This is supported by building that positive results in sports are associated with the quality of the relation between the coach the players during and after the training program Rhind and Jowett, (2010). With regardless of number of coach satisfaction in the training all the participant players 100% are argued with no difference the team have only one coach and. That means any coaching activities are in the shoulder of the coach due to this reason we can't train our training in terms of the area that we played this affect our developments. In this regards (Snow, 2012)state that players in age 12 and above show interest to play soccer in specific area of play so that the coach should organize the training program in terms of the players interest, this may help the development of individual as well as group tactic for the team.

In terms of parental support to the development of youth football players the researcher ask 2 question, Does your families are interested and support your participation in football? And Do your families attend your training and game to give a constructive feedback to your bright future? The respondent player's 91% families are not happy and did not give any support to their participation in youth football and also did not attend their training and game. The remaining 29% of respondents have a family support and also did not discuss about the development and progression of their youth players with the team administrators and the coach too, in the data collected from interview even though the families of the players have no interest on the participation of their children in footbali, administrators also did not organize and facilitate the participation of the parents in youth football. Here the involvement of parents in the participation of youth football is very crucial to support the idea most young athletes believe that their parents provide them with a supportive, stable, secure and encouraging environment (Helldsted, 1995). The researcher also ask questions to the coaches about documentation of the players previous and current performance, 75% of respondents have no any documents and checklist about the players previous and current performance to supervise their developments.

To investigate factor related with the attitude of administrative staff of the main club for the development and promotion of youth players in to the main team. 50% of the participant is agreed and the remaining 50% were not agreed in the above question, the data gathered through interview did not support it in that of most of the respondents are agreed that team administrators of the main club show a unhelpful attitude towards the promotion of players from the youth team instead of this the team collect experienced and over aged players from different countries and teams by very expensive pries. The researcher also asks the coaches about the previous performance of the players are satisfactory to join the main club. with no difference whole 100% participants respond that the previous performance of the players is not satisfactory to join the main club, this is because, the players did not pass through a scientific training methods and start their project in over 12 years old, the development of fundamental skill of football is very crucial before this age but in our case players are coming to the project level averagely on 12 years old.

Conclusion:- Based on the findings of the study the researcher conclude that the promotion of youth football players are influenced by less attention of the main club team administrators to the development and contribution of youth football players to the main club, in sufficient training material, equipments and training materials and also small number of coaching staff in the team affect the training method and negatively affect the development of players performance, player's families are discouraged the players' instead of supporting and helping to the developments of players, the governing body of the team did not allocate budget to youth team all this factors affect the development and production of competent youth players to the main club.

Recommendation

To solve the above mentioned factor the researcher forwarded the following recommendations:
The team administrators should give proper attention to the development and progression of youth players should fulfill the training materials, equipments and facilities. The team should organize the family's council to discuss about the players development and promotion in to the main club. The training methods of the coach should follow the scientific approach of training. The governing body of the team should increase the number of coaching staff in the teamThe governing body of the team should allocate enough amount of budget to the youth team.

Reference

Boixadós M, Cruz J, Torregrosa M, Valiente L(2004). Relationships among motivational climate, satisfaction, perceived ability, and fair play attitudes in young soccer players. J Appl Sport Psychol.; 16:301–317.

Dr. Thomas Fleck, Dr. Ronald W. Quinn, Dr. David Carr, William Buren, V. S. (2008). *The Official US Youth Soccer Coaching Manual*.

FIFA coaching manual. (n.d.). The player of tomorrow 1. (pp. 1–32).

FIFA. (n.d.). The psychological aspect 1. (pp. 1–21).

Gareth Stratton, Thomas Reilly, A.Marks, D. Ri. (2004). *youth soccer From Science to Performance*. Taylor & Francis Group LONDON AND NEW YORK.

Horn TS, Horn JL(2007). Family influences on children's sport and physical activity participation, behavior, and psychosocial responses. In: Tenenbaum G, Eklund RC, editors. Handbook of sport psychology. pp. 685–711.

Hellstedt JC (1995). Invisible players: A family system model. In: Murphy SM, editor. Sport Psychology Interventions. Champaign, Il: Human Kinetics;

Lyle, J. (2005). *Sports Concepts, Coaching*. Routledge is an imprint of the Taylor & Francis Group 29 West 35th sreet, New York,NY 10001.

Reilly, T., & Williams, A. M. (2003). *Science and soccer*. (T. Reilly & A. M. Williams, Eds.) (second). Routledge Taylor and Francis Group LONDON AND NEW YORK.

Rhind D, Jowett S(2010). Initial evidence for the criterion-related and structural validity of the long versions of the Coach-Athlete Relationship Questionnaire. Eur J Sports Sci.

Snow, S. (2012). *US Y OUTH S OCCER P LAYER D EVELOPMENT M ODEL A Player-*.

Sallis JF, McKenzie TL, Kolody B, Lewis M, Marshall S, Rosengard P(1999). Effects of health-related physical education on academic achievement: Project SPARK. Res Q Exercise Sport.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp5-8
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Conduct and Evaluation of Impact of Nutrition Education on the Knowledge of Selected Sports Women

Dr Rani George
PG Head, Dept. of Nutrition,
St Ann's College for Women, Hyderabad

Abstract
The general objective of this investigation was to conduct nutrition education programme for selected sportswomen in the city of Hyderabad and Secunderabad and to evaluate its impact on their nutritional knowledge. Accordingly a total of 60 sports women of the age group 17-24 years drawn from the prevalence study from all the Women's Colleges, affiliated to Osmania University, Hyderabad and having district, university, state, national or international level representation were selected. Nutrition education programme was carried out for all sports women who were selected. A nutrition education kit comprising of important sports nutrition topics was developed.. The impact of nutrition education on knowledge was assessed by administering the questionnaire developed to all the sports women.. The number of sports women giving the correct answer before and after the nutrition education was determined to assess the impact of nutrition education. Findings revealed that nutrition education helped to a large extent the collegiate sportswomen to understand the various concepts and for each set of question they could give the right answer.. Its therefore imperative that nutrition education should form an integral part of all intervention methods to obtain maximum and sustained benefits. Studies show that athletes who receive nutrition education have significantly higher knowledge and attitude scores and as their knowledge increases, they are more prone to eat right kind of foods. **Key words**: Nutrition education,, Sports nutrition, Knowledge and attitude scores

Introduction

Nutrition education as an effective tool in helping athletes modify their nutrient intake has been reported by Breward (1991). Nestel (1996) suggest that nutrition education should form an integral part of all intervention methods to obtain maximum and sustained benefits. Coaches, athletic trainers and health education teachers believe that they have the primary responsibility for the nutrition guidance of athletes (Juzwiak, 2004). Basic nutrition education is always the first step in helping athletes, coaches and trainers understand the importance of nutrition in athletic performance (Jacobson, 2001). Thus there is a need for continuing nutrition education programme for both coaches and sports men and women.

Methodology

Nutrition education programme was carried out for 60 selected sports women (N=60). A nutrition education kit was developed on sports nutrition which included various nutrition education materials like **booklet, pamphlets, charts, posters and CD** to impart nutrition education to all the selected sports women. Three pamphlets were developedand distributed to all the selected sports women. One was a comprehensive booklet with the title **"Sports and Nutrition – the Winning Connection"** which covered all the major aspects of sports nutrition. The other two pamphlets were titled as **"Sports Women and Anaemia"** and **"Pregame meal and water balance"** respectively..**Nutrition education sessions** with CD were conducted by the investigator using power point presentation on various aspects of sports nutrition. A specially designed questionnaire comprising 25 questions related to the topics taught through the nutrition education kit was developed to test the knowledge gained and was administered by the investigator to all the sports women before and after the period of study. The number of sports women giving the correct answer before and after the nutrition education was determined to assess the impact of nutrition education

Results and Discussion

Table I gives the percentage response of the selected sportswomen for knowledge on general nutrition.

TABLE IIMPACT ON GENERAL NUTRITION CONCEPTS (N=60)

Q.No.	General nutrition concepts	Percentage Response	
		BNE	ANE
		%	%
1	**Which is the best source of energy**		
	Protein	14	2
	Carbohydrates	24	94
	Vitamins	48	4
	Do not know	14	0
2	**Which nutrient is needed for body building**		
	Carbohydrates	42	4
	Fats	14	0
	Protein	26	96
	Minerals	18	–
3	**Which food gives energy to the body**		
	Cereals	28	96
	Vegetables	20	0
	Milk	44	4
	Do not know	8	0
4	**One gram of fat gives ..... Kilo calories**		
	4	12	92
	8	18	4
	9	20	4
	Do not know	50	0
5	**Vitamin A is good for**		
	Energy	20	0
	Blood	14	2
	Eye sight	40	98
	Bones	26	0
6	**Which of these is water Soluble Vitamin**		
	Vitamin A	16	0
	Vitamin B	22	96
	Vitamin D	26	4
	Vitamin K	36	0
7	**Which is the mineral needed for bones**		
	Calcium	64	100
	Iron	26	0
	Iodine	4	0
	Copper	6	0

BNE- Before Nutrition Education; ANE – After Nutrition Education

Table II gives the percentage response of selected sportswomen regarding knowledge on sports nutrition.

TABLE IIIMPACT ON KNOWLEDGE REGARDING SPORTS NUTRITION(N=60)

Q.No.	Sports nutrition concepts	Percentage Response	
		BNE	ANE
		%	%
1	**Good pre-game meal**		
	Meat and eggs	54	4
	Cereals and fruits	36	96
	Fatty foods	2	0
	Water	8	0
2	**Foods to be avoided before an event**		
	Fruit juice	10	0
	Cereals	36	0
	Fatty foods	30	96
	Milk	24	4
3	**Which of these give sustained energy**		
	Glycogen	16	94
	Glucose	78	6
	Fat	0	0
	Protein	6	0
4	**Normal blood glucose level is .....mg/ 100ml**		
	90 - 120	26	98
	80 - 100	36	0
	100 - 130	28	2
	60 – 90	10	0
5	**Too much protein in diet can affect**		
	Liver	40	3
	Heart	26	0
	Brain	16	0
	Kidneys	18	97
6	**Water loss in the body leads to**		
	Dehydration	46	96
	Anaemia	22	0
	Fever	30	4
	Bone fracture	2	0
7	**How many liters of water should be taken in a day**		
	1 litre	2	0
	1 - 2 litres	14	6
	2 - 3 lites	34	91
	3 - 4 litres	40	3

BNE- Before Nutrition Education; ANE – After Nutrition Education

Overall knowledge regarding general aspects of nutrition of all the selected sports women were far from satisfactory. But exposure to various nutrition education strategies brought a considerable improvement in their nutritional knowledge levels as indicated by the results above.

Conclusion

Thus nutrition education helped to a large extent the collegiate sportswomen to understand the various concepts and for each set of question they could give the right answer.. Above observations shows the impact of nutrition education on the knowledge levels of sports women. Its therefore imperative that nutrition education should form an integral part of all intervention methods to obtain maximum and sustained benefits .A qualified sports dietician, who is a certified specialist in sports dietetics, should be employed in educational institutions to provide individualized nutrition advice and counseling to the sports students.

References

- Breward, P.B. (1991), "Nutrition education and improved diets of college students", A supplement to the Journal of American Dietetic Association, Vol.9, No.1, P.251.3
- Jacobson, B. H., Sobonya, C., & Ransone, J. (2001), "Nutrition practices and knowledge of college varsity athletes: A follow-up", The Journal of Strength and Conditioning Research, Vol.15, Pp.63-68.
- Juzwiak, C.R. and Ancona-Lopez F. (2004), "Evaluation of nutrition knowledge and dietary recommendations by coaches of adolescent Brazilian athletes", International Journal of Sport Nutrition and Exercise Metabolism, Vol.14, No.2, Pp.222-235
- Nestel, P., Cogill, B.A. and Russel, P. (1996), "Micronutrient strategy for USAID/India OMNI JSI, File, E/OMNI/Micronuntrient fact sheets India.htm.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp9-11
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

A Comparative Study On Eating Disorder Among Males And Females Shooters

Shalika Srivastava[1]*, Mahak Sharma[2], Barkha Bhatnagar[3]

[1] MSc Student, Department of Nutrition and Dietetics, Manav Rachna International University, Faridabad. Email ID: shalikasrivastava476@gmail.com

[2]Assistant Professor, Department of Nutrition and Dietetics, Manav Rachna International University, Faridabad. Email ID: mahak.fas@mriu.edu.in

[3]Associate Professor, Department of Nutrition and Dietetics, Manav Rachna International University, Faridabad. Email ID: barkha.fas@mriu.edu.in

Abstract

Eating disorders are serious mental illnesses that are associated with significant physical complications. Eating disorders not only involve considerable psychological serious medical complications, which can affect every major organ in the body. Therefore the study aimed to identify eating disorder in males and females college shooters. The study was conducted in Manav Rachna International University Faridabad sector 43 surajkund road. Purposive sampling was done and 25 males and 35 females were selected. Questionnaire was formulated to collect qualitative data. Anthropometric measurements were done. Eating disorder was analyzed by structured questionnaire that is Eating Attitude Test (EAT-26). The data revealed that more of males suffering from eating disorder (40%) as compared to females (8%). Most of the female (29%) go on eating binges as compared to males (28%). Most of the males make themselves sick by vomiting to control their weight as compared to females. More of the females use diet pills to control their weight as compared to male. So study concluded, more of males were having eating disorder as compared to females.

Introduction

Eating disorders are serious mental illnesses that are associated with significant physical complications. Eating disorders not only involve considerable psychological impairment and distress, but they are also associated with major wide-ranging and serious medical complications, which can affect every major organ in the body. Eating disorders are frequently associated with other psychological disorders such as depression, anxiety, substance abuse and personality disorders[(1)]. In the United States, official statistics from the national eating disorder association (NEDA). Eating disorders in female athletes often result in the diagnosis of the Female Athlete Triad. Female Athlete Triad comprises disordered eating habits, like those of someone with anorexia nervosa, as well as amenorrhea, or loss of menstrual periods, and osteoporosis, loss of bone density. Weight fluctuations paired with hormonal imbalances can have serious effects not only on the individual's athletic performance but also on their long-term well-being[(2)]. Male Athletes Weight-class sports, like crew and wrestling have the highest occurrence of eating disorders among male athletes. Eating disorders in male athletes, like those in females, often emerge from a fear of becoming overweight. However, male athletes more frequently develop the disorder from apprehension of becoming less muscular. For this reason, there is a higher prevalence of EDNOS among male athletes as compared to anorexia or bulimia[(3)].

Methodology

The present study was divided into the following phases: Locale of the study, Sample size, Sample selection, Tools and technique. The study was conducted in Manav Rachna International University Faridabad sector 43 surajkund road. The target group of the study were shooters within the age of 18-29 years. Exclusion criteria were - below 18 years aged males and females were excluded, not willing to participate and suffering from any disease. Inclusion criteria were - both males and females were included, aged between 18 to 29 years and willing to participate. Purposive sampling was done and 25 males and 34 females were selected as a sample. Questionnaire was formulated to collect qualitative

data that include demographic profile, health profile, and dietary profile. Anthropometric measurements were done which concludes height, weight, waist circumference and BMI. Eating disorder was analysed by structured questionnaire that is Eating Attitude Test (EAT-26).

Results And Discussion

The study aimed to identify eating disorder in males and female college shooters. The purposive sampling was done and 34 Females and 25 males were selected as sample.

TABLE 1 DATA ON ANTHROPOMETRIC MEASUREMENT

ANTHROPOMETRIC MEASUREMENT	MALES (Mean ± SD)	FEMALES (Mean ± SD)
Height	169.28 ± 3.99	155.18 ± 3.94
Weight	71.76 ± 4.22	56.54 ± 6.33
BMI	25.078 ± 1.81	23.44 ± 2.19

Table 1 stated that the mean and standard deviation in males for height was 169.28 ± 3.99, for weight for this 71.76 ± 4.22 and for BMI was this 25.078 ± 1.81. The mean and standard deviation in females for height was 155.18 ± 3.94, for weight for this 56.54 ± 6.33 and for BMI was this 23.44 ± 2.19.

TABLE 2 DISTIBUTION OF SUBJECTS ON THE BASIS OF BMI

BMI	MALES	FEMALES	P VALUE (CHI SQUARE)
	N (%)	N (%)	0.015
UNDERWEIGHT	0 (0%)	0 (0%)	
NORMAL	3(12%)	14(41.2%)	
OVERWEIGHT	9(36%)	12(35.3%)	
OBESE	13(52%)	7(20.5%)	

Table 2 stated that more of males were obese (52%), on the other hand more of females were normal (41.2%) and the differences were statistically significant.

TABLE 3 DISTRIBUTION OF SUBJECTS ON THE BASIS OF EAT 26 SCORES

EAT 26	MALE		FEMALE		P – Value (Chi Square)
	N	%	N	%	0.006
1(Below20)	15	60	30	88	
2(above20)	10	40	3	8	

Table 3 stated EAT-26 scoring in total, below 20 were not suffering from eating disorder and above 20 might be suffering from eating disorder so, need to consult a physician. The data revealed more of males suffering from eating disorder (40%) as compared to females (8%)

TABLE 4 DISTRIBUTION OF SUBJECTS ON THE BASIS OF EAT 26 SCORES

EAT 26	MALE	FEMALE	P – Value (T test)
	M+SD	M+SD	
Dieting	7.08±2.59	5.84±1.64	**0.031**
Bulimia	3.48±1.98	2.69±1.42	.085
Oral	4.40±3.02	2.93±1.67	.083
Total	14.60±5.79	11.48±2.86	.009

Table 4 stated that EAT-26 consist of 26 questions were derived into three parts- dieting, bulimia and oral. The data revealed more of males were doing dieting (7.08±2.59) as compared to females (5.84±1.64) and had bulimia (3.48±1.98) and less oral control (4.40±3.02) as compared to females.

TABLE 5 DISTRIBUTIONS OF SUBJECTS ON THE BASIS OF BEHAVIORAL ATITTUTE

BEHAVIOURAL ATTITUTE	MALE		FEMALE	
	N	%	N	%
Gone on eating binges where you feel that you may not be able to stop	7	28	10	29
Ever made yourself sick (vomited) to control weight or shape	8	32	9	26
Ever used laxatives, diet pills or diuretics(water pills) to control weight	3	12	6	17
Exercised more than 60 minutes a day to lose or to control weight	6	24	6	17
Lost 20 pounds or more in the last 6 months	1	4	2	5

Table 5 stated that most of the female (29%) go on eating binges as compared to males (28%). Most of the males make themselves sick by vomiting to control their weight as compared to females. More of the females use diet pills to control their weight as compared to male. Most of the males exercised 60 minutes a day to lose or control their weight as compared to females. More of the females lost 20 pounds or more in last six months as compared to male

Conclusion:

The study concluded, more of males were having eating disorder as compared to females. Most of the males make themselves sick by vomiting to control their weight as compared to females. More of the females use diet pills to control their weight as compared to male.

References

1.Bealsa. (2000). Subclinical eating disorders in female athletes. Journal of Physical Education, Recreation & Dance;71(7): 23-30

2. Berry R & Howe L. (2000). Risk factors for disordered eating in female university athletes. Journal of Sport Behavior; 23(3): 207-218.

3.Cooper J, Taylor J, CooperZ, & Fairburn G.(1987) The development and validation of the body shape questionnaire. International Journal of Eating Disorders;6:485-494.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp12-16
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Technical-Tactical Statistical performance of Ethiopian male soccer national team and its success prediction capacity (The 4th Africans Championship (CHAN): Rwanda 2016)

Belayneh Chekle Admassu
Bahir Dar University, Ethiopia
belaynehchekle@yahoo.com

Abstract
This research has been carried out to evaluate Ethiopian national football team statistical performance and to identify the playing style. In addition, the research was also aimed to assess the extent to which statistical performance in possession, passing, passing effectiveness, crosses, successful crosses and on-target shoots as a parameter to predict the likelihood of success. Sometimes statistical figures may predict or correlate with success and sometimes these figures may not predict success. Therefore it was hypothesized that, Ethiopians would have a better statistical performance in possession, passing, passing effectiveness, crosses and on-target shots. And also it was predicted as there will not be relationship between the above parameters statistical and success. For this 3 games were analyzed objectively by having frequency count and percentage as a statistical approach. Finally it was found that Ethiopian football team was found poor in the statistics of possession, passing, passing effectiveness and on-target shots. It was not possible to have saying about which style Ethiopian side used. However, as commonly found with the analysis of recent FIFA world cups, statistical performance in the analyzed games can predict success. Finally, for Ethiopian football team, it is highly recommended to have a well defined approach or style of play so that players and teams can work accordingly. For this a proactive kind of football is better recommended.
Keywords: performance, possession, soccer, reactive, proactive, style of play, and technical-tactical

Background of the study

Without doubt the most popular sport throughout the world is football, which is also known with the code soccer. Starting from those early soccer like kicking games, practiced by ancient peoples, the game is passionate and demanding. Starting from the establishment of FIFA (federation international de football association) since 1904, a number of competitions commonly held on different scale.

Performance in higher level soccer heavily relies on various factors. For example, soccer requires the fitness which enables to play for prolonged time, high intensity and intermittent exercises (Mohr et al., 2003). This way, soccer players during games obliged to perform about 1300 actions (out of these, 200 of the actions are expected to be carried out at high intensity) and there will be in average 5 seconds between these actions (Bangisbo et al., 2006). Still technical proficiency, tactical know-how and psychological makeup take their share for performance or success achievement in soccer.

How teams play depends on the quality they do have and it is in consideration of the opponent. In a sense there are approaches or styles of play different teams prefer to succeed or win. Possession based approach (proactive style) and direct play (reactive style) are the two common extremes that teams employ during the battle of winning matches (Matthias Kempe et al., 2014).

In soccer, the ultimate goal that teams strive their best is to score goals and not to concede goals (Matthias Kempe et al., 2014). Therefore, regardless of the difference in playing style (approach), every team is targeting to score and defending not to concede. Teams with a possession based may be successful in most cases (e.g. in the FIFA world cup of 2006, 12010 and 2014).

On the contrary teams with a direct style of play may sometimes be successful (Ajibua M. A. & Igbokwe N. 2013 and Euro 2016 tournament). For all these and other instances, there is a continuous debate over which style is appropriate to be successful (Matthias Kempe 2014). However it should not be forgotten that it is a myth to think off winning all games. Still it logical at first to examine and evaluate the quality of the players and to decide which style best suits. Having a clear model enables to work on the players (youths) accordingly and to make them natural for the approach.

M.Hughes and I. Franks, 2005, has concluded that successful teams tend to have possession football that involves more touches/passes per possession than unsuccessful teams. On the contrary, Liam Diax and Dr. Laurence Protheroe, 2015,found that direct style of play is successful so as to create shots which are important factors in football today. In line with this, Euro 2016 showed that despite not being among the best five teams in possession, Portugal, the champion of Eur2016, was among those three best in the total number of shots.

Statistical techniques are applied to every aspect of life with technological advances (Matthias Kempe et al., 2014). This way, statistical methods or evaluation is evident recently (Cengiz and Kilinc, 2007). This can witness the necessity of soccer performance analysis of individuals and teams to be able to have corrective measures accordingly. During statistical analysis of soccer performance, possession and passing success (Castellano et al., 2013), passing and on-target shots (Moura, Martins and Cunha, 2013) are the common parameters. Furthermore, the number of crosses and the success rate of crosses are among those performance predicting parameters. And these parameters were the criteria against which the statistical performance and success of Ethiopian male football national team is evaluated.

objective of the study

To reveal the performance of Ethiopian football national team objectively in terms of ball possession percentage, number of passing, passing effectiveness, crosses and on-target shots, To identify success prediction possibility of statistical performance, To find out which playing style was predominantly used by Ethiopian football team and To forward possible recommendations.

Method

An objective evaluation of the quantitative or statistical performance has been done. Count of frequency has been used to analyze and evaluate performance in terms of passes, crosses, balls won in different thirds of the field and shots. Percentage has been employed to analyze possession, the effectiveness of passes, length of passes and success rate of crosses.

The evaluation has been done with those three games which have been played against Cameroon, Angola and Democratic Congo during the 4th Orange African nations championship (CHAN): Rwanda 2016. Thus, a total of three games has been analyzed critically by having ball possession percentage, total number of passes, length of passes, passing effectiveness, number of crosses, success rate of crosses, and on-target shoots as evaluation criteria. However, because of limited number of games, advanced statistical method was not used.

Result :Based on the finding, the result of research is shown in number in each table and with a description statement under each table.

Table 4.1. Ball possession percentage when Ethiopia plays against each team

Versus	Cameroon	Angola	D. Congo
Ethiopia	44%:56%	49%:51%	41%:59%
Goal	0:0	0:1	0:3

When we see the ball possession percentage of Ethiopia, it was 44%, 49% and 41% against Cameroon, Angola and D. Congo respectively. Cameroon (56%) takes a priority over Ethiopians in terms of possession. D. Congo takes a pronounced superiority (59%) when possession becomes the parameter. There was no that much difference in possession between Ethiopia and Angola, even though Angola was the winner.

Table 4.2. Number of passes and passing effectiveness

Game	Total passes	Passing effectiveness
Ethiopia versus Cameroon	402	73%
	507	83%
Ethiopia versus Angola	412	78%
	416	80%
Ethiopia versus D. Congo	426	72%
	525	80%

According to table 4.1, Ethiopians made 402 passes, 412 passes and 416 passes when they play against Cameroon, Angola and D. Congo respectively. On the contrary Cameroon made 507 (105 more passes than Ethiopia), Angola made 416 passes (4 more passes than Ethiopia) and D. Congo made 525 passes (99 more passes than Ethiopian) when they play against Ethiopia.In passing effectiveness Ethiopia achieved 73% when playing against Cameroon and Cameroon achieved 83%. When playing against Angola, which was able to have passing effectiveness of 80%, Ethiopia was able to have 78% passing effectiveness. More inferiorly, Ethiopia was having 72% of passing effectiveness when playing against D. Congo, which was able to have 80% passing effectiveness.

Length of passes

Game	Short pass (<17m)	Medium passes (17-34m)	Long passes (>34m)
Ethiopia versus Cameroon	55%	34%	11%
	49%	42%	9%
Ethiopia versus Angola	56%	34%	10%
	42%	45%	13%
Ethiopia versus D. Congo	53%	36%	11%
	43%	47%	10%

As the numeric value from table 4.2, Ethiopians make most of their passes short (passes which cover distance of less than 17 meter). 53%-56 of their passes in all of the three games was short passes. Since Ethiopians are poor in passing effectiveness, they were not good to play possession based football and even they did not play that way, because they were not having competence in possession percentage in the games analyzed. On the other extreme, they were not effective to play direct (reactive) kind of football, because they are not good enough to have effective long range passes or crosses and even the statistical analysis revealed they did not played that kind of football.

Table 4.3. Crosses and shots

Game	Crosses in play (success)		Shots		Goal
	Right side	Left side	Total shoot	On-target shoots	
Ethiopia versus Cameroon	3(0%)	1(0%)	1	1	0
	8(25%)	9(22%)	7	7	0
Ethiopia versus Angola	9(0%)	4(0%)	3	1	0
	14(50%)	9(11%)	5	4	1
Ethiopia versus D. Congo	5(0%)	1(0%)	1	0	0
	11(27%)	10(30%)	6	5	3

As shown in table 4.3, in terms of crosses and success rate of the crosses, Ethiopia was poorer than Cameroon (4 versus 17 crosses) and when Ethiopians achieved 0% success with their crosses, Cameroon was able to achieve 25% success in the right side and 22% in the left side crosses. Still Ethiopians were able to cross 13 (9 in right and 4 in the left side) and achieved 0% success in both the right and left side while the Angola counterpart was able to have 23 crosses (14 in right and 9 in the left side) with 50% success in the right side and 11% in the left side. When Ethiopians played against D. Congo, they were able to cross balls (5 from the right side and 1 from the left side) with 0%success. On the contrary D. Congo was able to cross 21 balls (11 from the right side and 10 from the left side). Still when Ethiopians achieved 0% success, D. Congo was able to have 27% in the right side and 30%

success in the left side crosses. Ethiopians were able to have only 1 on-target shot against Cameroon, when its counterpart able to have to have 7 on-target shots. When playing against Angola, Ethiopia has 4 shots with only 1 on-target shot and Angola made 5 shots with 4 of the shoots on-target. When playing against D. Congo, Ethiopia made 1 off-target shot only while D. Congo made a total of 6 balls and 5 of the shots on-target. These could be one potential factor for Ethiopian side to score no goals when conceding 4 goals.

Discussion

Ethiopia was found to have a ball possession percentage of 44%, 49% and 41% when playing against Cameroon, Angola and D. Congo respectively. On the contrary these teams were able to dominate or achieve a ball possession of 56% (Cameroon), 51% (Angola) and 59% (D.Congo). Leaving the other key parameters aside, the possession alone that these teams of Cameroon, Angola and D. Congo achieved indicates as they were likely to be successful over Ethiopia. This is because that there is a positive correlation between possession percentage and winning matches (Parizale & Yates, 2013, and Vogelbein et al., 2014). For example teams winning competitions in 2006 FIFA world cup was 52.4% in average (Catellano et al., 2012), in 2010 FIFA world cup was 52.6% in average (Catellano et al., 2012) and successful teams in 2014 FIFA world cup was between 50.32-56.71% (Kemal Goral, 2015). Generally for a goal to be scored, a team needs to have possession of the ball (Lago Pences & Dellal 2010). That is why Angola (with 1 goal) and D. Congo (with three goals) was able to defeat Ethiopia. However, Cameroon was not able to score or win the match despite achieving superiority over Ethiopia in possession. In some instances possession percentage may not be a valid indicator of how good a team was. What matters the most is the score (goal); possession cannot substitute score though it increases the likelihood of having chances. Possession alone is not the key for success (winning). To show this practically, in Euro 2012, Russia and Holland went home in the group stage despite having an average possession of 56%. Here Cameroon was not able to translate the possession that they achieved into a positive attacking move (shots/chances). More clearly, when Angola and D. Congo was able to have 23 (30.5% average success) and 21 (28.5% average success) crosses respectively, Cameroon was able to have 17 (with 23% average success) crosses despite having a better possession superiority than Angola did when playing against Ethiopia. This is simply an indicator that, "ball possession does not guarantee winning, but it means setting the pace and rhythm of the game...." (Matthias Kempe et al., 2014).

Ethiopian side as a team was not able to have superiority or even competence against the counterparts. This inferiority is visibly manifested in the goals they score and conceded (i.e., concede 4 goals and scored 0 goal). This indicates that Ethiopians were not having a possession based (indirect/proactive) football. Even the overall statistical figure indicated that they were not having even a direct (reactive) kind of football in the games analyzed.Controlled passing was the main indicator for success in the world cup of 2010 (K. Saito, et al 2013) and also H. Mendez et al., 2013 supported the above by emphasizing the importance of effective passing for success. For Ethiopian side, the inferiority in the number of passes may be because of low possession percentage, or even low possession percentage may be due to low passing score, because there is a positive correlation between possession percentage and passing scores (Collet, 2013). In this study the same thing is found that Ethiopians were found poor in passing and passing effectiveness in the games analyzed and it is found that the parameters were capable of predicting success. Ethiopians able to have passing effectiveness of 73%, 78% and 72% when they play against Cameroon, Angola and D. Congo respectively. In a better way, Cameroon, Angola and D. Congo were able to have passing effectiveness of 83%, 80% and 80% respectively when they play against Ethiopia. This could contribute for Ethiopians to lose in 2 games and to end up in a 0 draw in one game. When we see the passing effectiveness of those successful teams in the 2014 FIFA world cup, Germany and Argentina, they were able to have 81.9% and 77.68%. Thus, quality of passing is one key parameter to predict success. Conversion of ball possession in to a positive attacking chance is one critical parameter to measure the quality of possession. The conversion of position into attack is found good with that of Angola and D. Congo. They were able to have 23 and 21 shots respectively when they play against Ethiopia. Ethiopians have only 13 crosses against Angola and 6 against D. Congo. Most importantly, the success of the crosses of Angola was 50% in the right side and 11% in the left side and D. Congo achieved 27% and 30% success in the right and left side crosses respectively.

Most badly, Ethiopians achieved 0% success in all the crosses. Here Cameroon made 17 crosses which is less than that of Angola and D. Congo and in average 23.5% of success still which is less than that of what Angola and D. Congo did against Ethiopia. This may have contributed for Cameroon to have a zero draw with Ethiopia despite 56% possession.Castellano et al., 2012 found that attacking play in

terms of shoots on target is one main factor to success in today's soccer. The same thing is found with this study that Ethiopians made only 1 on-target shoot against Cameroon and Angola on each and no on-target shot against D. Congo. Each of these teams made 7 (Cameroon), 4 (Angola) and 5 (D. Congo) on-target shoots when they play against Ethiopia. However, Cameroon was not able to score goals despite more on-target shoots and higher ball possession when Angola and D. Congo score goals and win. Attacking efficiency mainly matters winning.

Conclusion

Ethiopian national team was poor in having possession. Besides, the team was found the worst in passing, passing effectiveness, crosses and making successful crosses, on-target shots, and most importantly in scoring goals. Ethiopian side scores no goal when conceding 4 goals in three matches (when the rate of scoring is 0 the rate of conceding was 1.33 per game). It was difficult for Ethiopian side to identify which style of play they employ mainly, because they were poor at possession, passing, crosses or in having long balls. The statistical performance is found to be a good indicator of success. (i.e., Ethiopians were poor in the statistical figures and they were not successful).

Recommendation

We need to have a specific approach or style of play. We don't have a national football model or philosophy as a guide of coaching and development. We ought to decide which style best fits and works well in today's soccer. From the evidence of the 2006, 2010 and 2014 FIFA world cup successful teams (Spain, Holland, Germany and Argentina), it is too appropriate to have a proactive (indirect) style of football model. The distinguishing characteristics of these teams are patient build up, excellent passing, good links between lines and no long forward pass. In addition to this, having seen our natural preference and physical attribute or natural preference we better need a national philosophy of proactive approach and we need to work on youths accordingly. The game models based on indirect style (proactive) seem to have more chances of success in the near future (Castellano et l., 2012).

References

- Ajibua M.A. and Igbokwe N. Ball possession as a determinant of victory in soccer. International Institute for Science, Technology and Education 3 (8): 1-7, 2013.
- Bangsbo, J., Mohr, M., and Krustrup, P. Physical and metabolic demands of training and match-play in the elite football player. Journal of Sports Sciences. 24(7): 665-674, 2006.
- Bradley PS, Lago-Penas C, Rey E, Diaz AG. The effect of high and low percentage ball possession on physical and technical profiles in English FA Premier-League soccer matches. Journal of Sports Sciences. 31(12): 1261-1270, 2013.
- Castellano J, Casamichana D, Lago C. The use of match statistics that discriminate between successful and unsuccessful soccer teams. Journal of Human Kinetics 31: 139-147, 2012.
- Cengiz and D, Kilinc. The ranking of soccer teams attended to the world cup 2006 by factor analysis. Marmara university journal of IIBF. 23(2): 351-370, 2007.
- Collet C. The possession game? A comparative analysis of ball retention and team success in European and international football, 2007–2010. Journal of Sports Sciences. 31(2): 123-136, 2013.
- H. Mendez, G. Bello-Orgaz, and D. Camacho. Extracting behavioral models from 2010 FIFA world cup. Journal of systems science and complexity, 26(1): 43-61, 2013.
- J. R. Bloomfield, R. C. Polman and P. G. O'Donoghue. Effects of score-line on team strategies in FA Premier League Soccer, Journal of sports Sciences, 23(2): 192-195, 2005.
- Kemal Goral. Passing success percentages and ball possession rates of successful teams in 2014 FIFA World cup. International Journal of Science Culture and Sport 3(1): 86-95, 2015.
- K. Saito , Yashimura, and T. Ogiwara. Pass appearance time and pass attempts by teams qualifying for the second stage of FIFA world cup 2010 in South Africa: all 48 group stage matches. Football science 10: 65-69, 2013.
- Lago-Peñas C, Dellal A. Ball possession strategies in elite soccer according to the evolution of the match-score: the influence of situational variables. Journal of Human Kinetics 25: 93-100, 2010.
- Liam Diax and Dr. Laurence Protheroe. A comparison of chances created between successful and unsuccessful premier league teams based on possession during the season of 2014/15, 2015, Unpublished.
- Matthias Kempe, Martin Vogelbein, Daniel Memmert and Stephan Nopp (2014). Possession vs. direct play: Evaluating Tactical Behvior in Elite Soccer. International journal of sports science 4(6): 35-41, 2014.
- Mohr, M., Krustrup, P., and Bangsbo, J. 2003. Match performance of high-standard soccer players with special reference to development of fatigue. Journal of Sports Sciences. 21(7): 519-525, 2003.
- Moura FA, Martins LEB and Cunha SA. Analysis of football game-related statistics using multivariate techniques. Journal of sports sciences. 32(20):1881-1887, 2013.
- M. Hughe and L Frank. Analysisn of passing sequences, shots and goals in soccer. Journal of sports sciences, 23(5): 509-514,
- Parziale EJ, Yates PA. Keep the Ball! The Value of Ball Possession in Soccer. Reinvention: International Journal of Undergraduate Research. 6(1): 1-24, 2013.
- P. D. Jones, N James and S. D. Mellalieu. Possession as a performance indicator in soccer. International journal of performance analysis in sport, 4(1), 98-102, 2004.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp17-18
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

A Boon for Cholesterol Reduction on Volleyball Players and Non-Volleyball Players

***Mr. Syed Yunus Dharward, **Dr. L.S. Biradar**
***Ph.D. Research Scholar Dept. of Physical Education Swami Vivekanand University, Sagar – Madhya Pradesh**
****Dept. of Physical Education L.V.D College, Raichur.**

Introduction

The mans participation in physical activity improves the functional capacity of the various systems. Recent studies have shown the significant relationship between the functional capacity of the respiratory system and the physical performance. During physical exertion, the respiration plays a two fold part in body, it supplies the oxygen required by the muscles on the hand, and on the other it serves to keep the acid base balance of the blood constant within certain narrow limits. The greatest volume of air that can be inhaled from the resting respiratory level is called the aspiratory capacity which among to 2 to 3 litters.

Objectives :

- To make a comparative study on similar age group volleyball players and non-volleyball players.
- To show the major difference in the human body with respect to bio-clinical reaction during sport.
- To make the sport / games not just a hobby but a necessity.
- To show the change in the ratio of high cholesterol low HDL cholesterol / HDL level among actively involved, sporting people and literally effortless (sitting) people.

Materials and Methods :

To carry out the study of drastic difference in varies cholesterol level between volleyball players and non-volleyball players similar age group people it required two groups one group comprising of five members those who are physically involved in sports like table tennis, volleyball, badminton and other out door games and other group of 4 members those are non-sportive, performing their work by spending there time on chair.

To know the cholesterol level 5ml blood is collected by the means of new sterile disposal by vain puncture technique.

The blood is collected in a sterile vials and foiled tightly and allowed clot, in order to get the serum.
Serum is then send to one of the most reputed Dharward Diagnostic Lab for lipid profile of individual sample of both group.

Lipid profiling involves a verity of important bio-chemical tests like blood sugar, cholesterol, HDL cholesterol, HDL CHOL / CHOL Ratio LDL Triglycerides sGOT, LDH, CPK, CKMB.

Observations :

The impact of the sports carried bio-chemical reactions such a beneficial way that it shows reducing in blood sugar cholesterol, that basic principal of this reducing is nothing but burning of stored cholesterol and often, gained calories. Sports make body effective and mind action, where as sitting completely effortless resting body not only gains it but also put on calories bad cholesterol.

The following table show various bio-chemical tests with difference between two group in terms of sports

Volleyball Players	Blood sugar (normal range 65-110 mg / dl)	Cholesterol (normal range upto 200 mg/dl)	HDL_c Chol / Chol ratio (Normal range 1-5.)	LDL (normal range 150 mg / dl)	Triglycordies (normal range 35.165 mg/ dl)	VLDL (normal range upto 40 mg /dl)
244	75	177.00	3.54	101.00	132.00	26.40
245	68	172	3.37	94.00	138.00	27.60
246	82	181.00	3.69	112.00	102.00	20.48
247	100	192.00	4.00	111.00	115.00	23.00
248	120	201.00	4.18	127.00	122.00	24.40
Non Volley Players						
249	110	249.00	5.41	171.00	164.00	32.80
250	129	241	5.12	161.00	169.00	33.80
251	130	200.00	4.73	117.00	201.00	40.80
252	152	224.00	5.04	138.00	199.00	39.80

Results and Discussion

By observing the table holding difference specially in cholesterol level, HDL, Chol/ Chol Ration, LDL, Triglycerides, its clear that the above reading of lipid profiling is in a controlled normal range in case of volleyball players, and the range is higher and uncontrolled range, in non volleyball players. Thus there is very less possibility that actively involved person may suffer with obesity, hyper glycemia, artherosclosis, athrerosclerosis as compare to the rest.

Conclusion

Since from immenocable time it is said that healthy mind and soul lies in healthy body and the best way to keep healthy by placing sports in our routine life, being and end the day with sports that makes physically, mentally and emotionally strong, thus finally research on both group reveals. Outdoor games plays prominent role in reducing of cholesterol and sugar without medication. The difference in cholesterol range between two groups even a layman to realize the role of sports in reducing of sugar and cholesterol. A part from slight exercise body need bending, stretching and working of each and every muscles to metabolize the bio molecules in an efficient and normal manner. 2 km walks per day burns above 200 calories and tone up and strengthen all types of muscles and makes person mentally confident, if just walk benefits the much then a run in above imaginable.

References:

- Dan Franks B, "Smoking and selected cardio vascular respiratory measures" research quarterly 14:2, 1970.
- Leman Willers and Harman J, Moerech factors influence vital capacity archives of internal medicine 33:137 – 143 1924.
- Kaleel K.M Vital capacity in reaction to sports (Un published master thesis Govt. college of Physical Education University of Bangalore, 1975.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp19-25
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

A Tracer Study Of The Graduates Of Sport Academy In The Years 2010-2015

Zemenu Teshome ,
PhD Scholar at Bahir Dar University, Ethiopia
Email zemenutesh@yahoo.com

Abstract
This study endeavored to examine the curriculum relevance and program effectiveness of undergraduate program(Tracer Study) of Sport Science, Bahir Dar University. Data was collected from 42 graduates of Sport Academy of Bahir dar University since 2010-2015. Questionnaire was developed by the researcher and given for two professionals for face validity. The analysis was first made by item-by-item using percentage to critically see the areas where the curriculum relevance and program effectiveness can be checked. Then, inferential statistics (One-sample t-test and independent sample t-test) was applied. The results portrayed that the graduates believe that the curriculum is relevant to develop various skills. This was substantiated by the one sample t-test the observed mean significantly exceeds the expected mean. Similarly, the program was evaluated by the graduates as very strong that every component is meant to address the objectives of the curriculum. Thus, it is concluded that the Sport Academy, Bahir Dar University undergraduate program is relevant and constitutes strong program components. However, the item-by-item analysis has shown some of the areas where the Sport Academy should revisit its curriculum and program components.

Introduction

The success of the Higher education will increasingly depend on the quality of its human resources which, in turn, is inextricably linked to the effectiveness and efficiency of its education and training programs. At a time when the country is undergoing a critical phase of its development, with a re-engineering of its economic sectors towards service-oriented and knowledge-based growth, the importance of having a critical mass of professionals at all times to support existing and emerging sectors assumes high significance. However, it is equally pertinent that prospective new entrants into the labor market possess the skills, knowledge and expertise that employers require (Probes, 2008).

Tracer studies constitute one form of empirical study, which can be considered an appropriate means of evaluating the results of the education and training provided at a given institution. It brings together certain basic types of information concerning the level of employment, unemployment and underemployment amongst graduates, the contemporary undergraduate experience, the first and current work position of graduates and the correspondence between educational qualifications and required work skills (Ugwuonah & Omeje, 1998).

Results of such studies can often demonstrate the success of education and training in relation to the graduates, labor market and employers. The information acquired by means of tracer surveys can also indicate possible deficits in a given educational program and serve as a basis for future planning activities, at both the institutional and national levels, such that academic programs might be brought more closely in line with the needs of the economy.

Tracer studies are common research tools for educational and training programs. These impact assessment tests help identify the strengths and weaknesses of the programs they measure. The institutions use the results of tracer studies to improve education and training programs as well as enhance the learning experiences of future learners.

Tracer studies are means of maintaining curriculum relevance and providing targeted benefits to graduates to enhance marketability of educational programs. Adequate knowledge on employment outcomes of training graduates could assist in formulating policy towards combating some of social problems such as unemployment.

Students, particularly graduates of any course, are required to earn a sense of competence in their chosen field and develop confidence to explore new possibilities and new employment specially that there is increasing competition among rivals at work (Mathed, 2008). As graduates of higher educational institutions, they must show the world that job- hunting is not a problem. At present, competition in the business or corporate world is so stiff because of the increasing demand of the market. Only few are employed which proves that these lucky applicants are the best among others. Relatively, one, particularly a graduate of higher education, must possess competency among the three domains like, knowledge, skills and attitudes required by the specific job.

The survey made on the graduates of the graduate course in any field (Probes, 2008) determined the employability and relevance of their graduate trainings to their jobs and to the field. The survey, can help to sought information on the nature of tasks and function performed by the graduates in their respective jobs and requested some feedbacks on how useful and relevant were their degrees to the work they were engaged in. In tracer study, the graduates are requested to offer some suggestions on how graduate programs could be more relevant so as to make their contribution to national development efforts more substantial and meaningful.

Conducting graduates tracer study helps the Sport Academy to know their position in terms of their efficiency in providing applicable knowledge to students. The feedback obtained by a tracer study at the same time helps to identify the weakness of the graduate's and to improve for others who are still in the system. The graduates are performing well at work means it is a pride to the institutions and indicative of the value of education it is providing. Nevertheless, majority of the private Higher Education Institution do not conduct graduates tracer study that implies they are getting limited feedback about the position of their level of performance at work (Tiruneh and Zenegnaw, 2007).

This study, therefore, derives from the concern with how adequate or otherwise Sport Academy provides for manpower needs of all sectors. Though Sport Academy had awarded certificates, diploma, and degrees and M.Sc. for many graduates since 2001, no systematic study has been carried out to determine the influence of its programs in meeting human resource needs of the country. All these have initiated Sport Academy to the following research question namely; how far and how well does the Sport Academy satisfy the manpower needs of the country. This central problem has led to a number of more specific and related research objectives. Thus, the following research questions are formulated.
How do graduates evaluate the relevance of the courses to the world of work?
What is the perception of employers about the graduates' competencies?
Is there is concordance between the training and the skill required in job?
What sort of improvements are required to improve the programs of sport academy

Objectives of The Study
This study determined the employability of Bachelor of Science in Sport Science graduates from 2010 to 2015. Specifically, this study aimed to determine the profile of the Sport Science graduates from 2010 to 2015 in terms of Gender, age and year graduated; nature of employment; and Employment status (government, private and abroad); to determine the level of competency in terms of knowledge, skills and attitudes; to identify the difficulties encountered in the present job in terms of knowledge, skills and attitudes; to test the if there is a significant relationship in the level of competency and the level of difficulties encountered along knowledge, skills and attitudes; and to propose some measures to enhance the competitiveness of the Sport science graduates.

Thus, this study intends to examine the adequacy of Sport Academy to provide the necessary for manpower needs of the subsectors. Other specific objectives of the research include:

- To demonstrate the success of education and training relating to the graduates, and employers.
- To find out how the graduates obtained their first employment

- To determine whether or not the graduates specific work assignment are related to their field of study
- To indicate possible deficits in a given educational program and serve as bases for future planning activities such that academic programs might be brought more closely in to line with the needs of the country in question.
- To access the graduates perception and attitudes towards Sport Academy and their occupational characteristics

Significance of the study:
The study is considered as a contribution to the growth of knowledge of the linkage between education and training of Sport Academy and work in Ethiopia. It could be hoped that by and large this study may:- Serve as a basis for self evaluation of Sport Academy of Bahir dar University. Assist higher officials (Ministry and Bahir dar University) to have the whole picture of Sport Academy and contribute what is expected of them. Strengthen the relationship of customer organizations who demand skilled labor and Sport Academy. Enable Sport Academy identify areas for development

Scope of the Study
This study covers issues related with the relevance courses for the world of work, graduates attitude towards sport academy, employers perception of the competencies of graduates and ways to improve the program.

METHODS
A tracer study helps researchers identify effective and ineffective components in educational and vocational programs. The results of tracer studies are quantitative and the data is easy to analyze. A tracer study in the field of education includes data from former students of learning institutions or vocational programs. The format of a tracer study is often a questionnaire. According to the manual for creating tracer studies by the international cooperative, Helvetius, effective tracer studies are short questionnaires with clear questions, ask for recommendations and use both quantitative and qualitative questions. Tracer studies are most effective when the samples are random and include annual collection of data. To conduct this study, the descriptive method of research was considered appropriate. The researchers carried out this research by observing several accepted procedures.

Population of the Study
For this study graduates of Sport Academy Bahir dar University from the year 2010-2015 E.C. will be target population. Education Bureau, Sport and Youth Commission, Schools, Colleges and Universities will be areas where graduates of sport Academy are expected to be employed.

Samples and sampling procedures
Once these targets are addressed sample respondents will be selected using the following procedures. Two regions from developed and two regions from emerging regions will be selected using random sampling technique. Two zones and two worredas from each zone will be selected using simple random sampling technique. The education offices and sport commission offices will be selected using available sampling. In each worreda two schools will be selected. Once these targets are identified using these procedures sample respondents will be identified using snow ball sampling.

Data Collection Instruments
In this study two data collection instruments were used. The first is questionnaire and the second is semi-structured interview. Questionnaire was constructed by the researchers. The questionnaire was used to measure about graduates profile, curriculum relevance, work place challenges, employers' perception, graduates attitude, and areas of improvement in the program. The questionnaire was given to two professionals (psychology and English language) to evaluate face validity. After that pilot study will be conducted in third year sport academy students for clarity and graduates who will not be included in the final study. Semi structured interview was used to the employers about the competencies of the graduates.

Data Analysis techniques

The data collected was edited, coded and inputted on an SPSS Database Access. Data cleaning was also necessary where responses received will not be clear or properly coded. The statistical tools used will be: averaging, percentage technique and weighted mean. Spearman Rho was used to determine the significant relationship between the level of competences and the level of difficulties encountered along knowledge, skills and attitudes.

Ethical Considerations

First, permission to conduct the research was immediately solicited by the researchers after the presentation and approval of the research proposal by the Research Committee. Second, prepared and validated questionnaires will be sent to the graduates through face to face, email, snail mail, and other means of delivery. A letter was attached to the questionnaire to inform the respondents about the study and assure them about the confidentiality of the data. Third, the answered questionnaire was retrieved by the researcher. Fourth, numerical analysis in the gathered data was performed.

Analysis of the Data

This study was conducted to collect feedback about the overall program relevance of undergraduate Physical education program given at Bahir Dar University. In this study 42 respondents have participated in giving their outlook regarding the nature of training they received at undergraduate program. The participants have graduated with B.Sc. degree from Sport Academy of Bahir Dar University since 2010 - 2015. The questionnaire that constitutes 38 items was dispatched to the respondents. All participants have returned the questionnaire. Thus, the results of the questionnaire is analyzed and presented here under.

From the total of 42 respondents 86.4% are males and the remaining 13.6% are female participants. 32% Physical education teachers have expressed that their parents' education level is illiterate. Forty six percent of the respondents have fathers with primary education experience. The 68% of respondents have expounded that their mothers did not have any formal education exposure. However, 30% of respondents pointed out that their mothers have primary level education. Among the respondents, 39% have reported that they were working while studying while 61% were only engaged in their academic work.The respondents were asked about the range of time that they secured their jobs after graduation. Thirty percent have reported that they secured their job within six months. Few respondents (7%) have indicated that it took them one year to secure their job. The remaining respondents have consumed more than a year to secure a job. Eight four percent of the respondents have reported that they are full time workers while the remaining expressed that they currently work on part time basis. The respondents were asked about the sources of information about the job announcement. Eleven percent of the participants have reported that they got the information about job advertisement from fiends. Besides, five percent indicated that the sources of information for the job were relatives. However, 55% of the respondents have shown that written enquiries were the sources of information about the job advertisement. The respondents have indicated that they have participated in various positions. For instance, 7% of the respondents re[ported that they are serving as school managers, 16% as middle level managers and the remaining while 77% are engaged in teaching. Regarding their annual income, the majority 89% respondents have reported to have an average of 50,000 ET Birr per Year while 10% earn between 50,000- 60,000 Birr annually.

Table 1 Curriculum relevance

Items	Not highly relevant		Not relevant		Not Sure		Relevant		Highly relevant	
	No.	%	No	%	No	%	No.	%	No	%
Enhanced academic knowledge	1	2.3	2	4.5	7	15.9	12	27.3	20	47.6
Improved problem-solving skill	2	4.5	6	13.6	7	15.9	12	27.3	11	25.0
Improved research skill	3	6.8	4	9.1	9	20.5	22	50.0	3	6.8
Improved learning efficiency	1	2.3	1	2.3	6	13.6	13	29.5	13	29.5
Improved communication skill	2	4.5	1	2.3	9	20.5	9	20.5	15	34.1
Improved information skill	2	4.5	8	18.2	16	36.4	10	22.7	6	13.6
Enhanced team spirit	3	6.8	2	4.5	6	13.6	11	25.0	12	27.3

One of the issues measured in this study was curriculum relevance. The participants were asked as to whether the curriculum enhances various skills. Seventy four percent of the participants have pointed out that the undergraduate program curriculum enhances academic knowledge while the remaining 36% of them expressed their dissatisfaction. More than 50% of the respondents have also reported that the undergraduate curriculum is pertinent to promote graduates' problem-solving skill.Similarly, 56% of the respondents have revealed that the curriculum is capable to develop graduates' research skills. Though below 50%, significant number of respondents has expressed their disagreement. As to the relevance of the curriculum to enhance learning efficiency, 60% of the respondents have reported positive reply. However, 14% of them were not sure as to whether the curriculum can promote learning efficiency. Furthermore the participants have reported that the undergraduate curriculum is pertinent to develop communication skill (55%), information technology skill (49%) and team spirit (52%).

Table 2 One Sample t-test on Impact of the curriculum

Activity	Obs. Mean	Expe. Mean	df	std	Sig.
Impact of the curriculum on know., skill & attitude	21.2791	14	41	6.69	.000

After examining the curriculum relevance through an item by item analysis, one sample t-test was calculated to grasp the overall curriculum relevance. The result of the analysis in Table 2 depicted that there exists significant mean difference between the observed mean and the expected mean in favor of the observed mean. This implies that the curriculum of the undergraduate Physical education of Sport Academy, Bahir Dar University has been conceived by its graduates as relevant.

Table 3 Strength of program components

The table below describes the descriptive data of the response of the participants regarding the strength of the program components.

Items	Not highly relevant		Not relevant		Not Sure		Relevant		Highly relevant	
	No	%	No	%	No	%	No	%	No	%
Range of courses offered	2	4.5	1	2.3	4	9.1	10	22.7	23	52.3
number of optional subjects	2	4.5	4	9.1	11	25.0	19	43.2	8	18.2
Relevance of the program to your professional requirements	1	2.3	2	4.5	5	11.4	10	22.7	13	29.5
Extracurricular activities	4	9.1	4	9.1	9	20.5	11	25.0	10	22.7
Problem solving activities	3	6.8	4	9.1	8	18.2	11	25.0	14	31.8
Inter-disciplinary learning	1	2.3	2	4.5	8	18.2	7	15.9	12	27.3
Work placement/attachment	1	2.3	1	2.3	5	11.4	8	18.2	15	34.1
Teaching Learning environment	1	2.3	4	9.1	4	9.1	10	22.7	12	27.3
Quality of instructional delivery	4	9.1	6	13.6	12	27.3	15	34.1	7	15.9
Teacher student relationship	1	2.3	4	9.1	6	13.6	15	34.1	17	38.6
Library/lab etc.	7	15.9	7	15.9	9	20.5	4	9.1	10	22.7

In this study attempts have been made to examine the strengths and weakness of the program components, teaching learning process and facilities using ii items. Regarding courses offered 81% of respondents have conveyed the strength of the course offering in the department. Sixty one percent of the respondents have reported that there is adequate number of optional subjects. As to the relevance of the program to once professional requirements, 53% expressed their satisfaction. The relevance of extracurricular activities was only rated by 48% of respondents. Similar results are obtained as to the nature of the program to incorporate problem-solving activities (57%). The survey made on the graduates of the graduate course in Urban and Regional Planning (Probes, 2008) determined the employability and relevance of their graduate trainings to their jobs and to the field. The survey, a first of its kind in the seven years of its programs, sought information on the nature of tasks and function performed by the graduates in their respective jobs and requested some feedbacks on how useful and relevant were their

degrees to the work they were engaged in. Related to this, the graduates were requested to offer some suggestions on how graduate programs could be more relevant so as to make their contribution to national development efforts more substantial and meaningful. Participants were also asked about the very presence of inter-disciplinary learning and its relevance. About 43% of respondents positively replied regarding the interdisciplinary nature of the program. One of the mechanisms through which graduates' skill, knowledge and work ethics develops through practical attachments. Regarding practical attachments of the program, 52% replied that the program is substantiated by practical attachments in the field.The participants were asked about the conduciveness of the teaching learning environment. Nearly, 50% of the respondents have replied that the teaching learning environment is conducive for learning. However, equally, 50% disclosed their dissatisfaction regarding the teaching learning environment. The findings of this study further portrayed that similar number of respondents have shown the appropriate quality of delivery of instruction. Large number of respondents (73%) has posited that the teacher-student relationship is acceptable. After an item by item analysis, is made one sample t-test was carried out to examine the statistical significance of the relevance of program components.

Table 4 One Sample t-test on relevance of program component

Activity	Obs. Mean	Expe. Mean	df	std	Sig.
Relevance of program components	36.6923	22	41	10.32	.000

The data in Table 3 reports the one sample t-test analysis on the strength of program components of the sport Academy of Bahir Dar University. The results in the table above portray that the observed mean exceeds the expected mean. The difference is statistically significant. This implies that the respondents have claimed that the program in its totality is strong to meet its purpose.

Table 4 Independent Sample t-test on curriculum and Program relevance across

No.		**Male Mean**	**Female Mean**	**df**	**std**	**Sig.**
1	Curriculum Relevance	20.75	24.5	40	6.6	.207
2	Relevance of program components	37	34	40	10.3	.556

Attempts were made to see as to whether there exists gender difference on the perception of curriculum and program relevance. However, in both cases there exists no statistically significant mean difference between male and female graduates of Sport Academy of Bahir Dar University. This implies that both sexes have perceived that the curriculum is relevant to develop various skills, knowledge and employability skills. Besides, both sexes equally understood that the program components are strong to support the teaching learning process.Open ended questions were included in the questionnaire as to what should be done to improve the undergraduate program. One important comment was forwarded from the respondents. That is, the course on sport for Special needs students should be included.

Table 5: Relevant Courses to for the Job

Important Courses	No
Athletics	19
Gymnastic	8
Foot ball	23
Volley ball	17
Hand ball	16
Basket ball	7
Biology	1
Physiology	3
Anatomy	2
Bio Chemistry	1
Measurement & evaluation	1
Sport Medicine	1
Fitness	1

Graduates were also asked through open ended questions about the important courses and their contribution to their professional work. They have listed number of courses which they think have greatly contributed to enhance various skills necessary in their work. The results in table 5 pointed out that Athletics, Gymnastics and Foot Ball have been rated as very important courses in Sport Academy to develop skills from first to third level respectively. However, Measurement and Evaluation, Sport medicine and Fitness courses have been rated to be significant by few graduates.

Table 6: Recommended Courses for Future

Bicycle couching	10
World Toquando	8
Swimming course	4
Weight lifting couching	3
Box couching	3
Tennis ball couching	1
Chess	1
self defense couching	1
Practice oriented health education	1
Arbiter Course	1
Deaf Sport Course	1
Different couching courses	1
Racquet game	1

Similarly, graduates were asked to recommend additional courses to be included in the curriculum. The results are indicated in Table 6. The results show the order of the importance of courses based on graduates work experience. Bicycle Couching, World Tequando and Swimming courses were highly recommended to be added in the undergraduate program of Sport Academy. Besides, additionally 10 courses were recommended to be integrated in the undergraduate program. These courses include Weight lifting couching, Box couching , Tennis ball couching, Chess, self defense couching, Practice oriented health education, Referee Course, Deaf Sport Course, Different couching courses and Racquet game.

Conclusion and Recommendations

Thus, it is concluded that the Sport Academy, Bahir Dar University undergraduate program is relevant and constitutes strong program components. However, the item-by-item analysis has shown some of the areas where the Sport Academy should revisit its curriculum and program components, such as the relevance of the curriculum in developing information technology skill, this skill is currently the basic skill that everyone is required in any field. Besides, despite the fact that many people have rated the program to be relevant equally significant number of respondents have rated undecided and below the mean. Thus, the sport Academy has to work towards ensuring the course relevance to all its graduates. The respondents have suggested list of courses to be included in the undergraduate curriculum. However, the curriculum is time bounded that it is difficult to include all important courses. Thus, the Sport Academy can organize short term trainings to all courses presumed to be important.

References

- Boettcher, J.V. (2006). 21st century teaching and learning patterns. What will we see? Syllabus press, June 2006
- Reich Robert Higher education market warning. The annual higher education policy institute lecture, UK. 2004
- Schomburg Harald (2003). Handbook for graduate tracer study. Center for higher education research and work. University of Kassal, Germany.
- Tiruneh A. & Zinegnaw H. (2007). Tracer study of higher education. Addis Ababa
- Mathed S. (2008). Handbook of tracer study. Oxford
- Probes K .(2008). Tracer study and the world of work. Kenyatta University
- Ugwuonah G.E. and Omeje K.C. (1998). Final re[ort of tracer study research project on higher education and work. IDS, University of Nigeria.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp26-28
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Importance of Nutrition And Diet For Sports person

Dr.Rajashekhar, M. Hiremath,
Assistant Professor of Physical Education.
University of Horticultural Sciences, Bagikot-587 104, India,
Email.ID:pressports9@gmail.com

Abstract
Appropriate nutrition complements training and recovery and can induce metabolic adaptations to training. Adequate energy should derive from a variety of foods that provide carbohydrates, proteins, fat and micronutrients. Maintenance of the energy balance in individuals with increased requirements because of physical activity is important. Habitual carbohydrate intake is essential for physically active individuals and should be timed according to training sessions to ensure optimal pre-, during, and post-workout nutrition. Dietary protein requirements are slightly elevated in the case of strength, speed and endurance training. Consideration of the quality and timing of protein intake is important. The fat requirements of athletes are similar or somewhat higher, so consumption of adequate amounts of fat is essential for optimal health, maintenance of energy balance, optimal intake of essential fatty acids and fat-soluble vitamins. Vitamins and minerals are needed to provide a health benefit, although the ergogenic effect of most micronutrients is still unclear and warrants further research. Supplements and sports foods are used extensively and although the use of some supplements may be ergogenic, the risk to benefit ratio needs to be carefully considered before embarking on the widespread use of supplements.

Introduction:
The International Society for Sport Nutrition (ISSN) also published two consensus documents; one in 2008 that focused on nutrient timing and another in 2010 that reviewed research on and recommendations for exercise and sport nutrition.3 The American Dietetic Association (ADA), the Dietitians of Canada and the American College of Sports Medicine (ACSM) teamed up in 2000 and 2009 to publish their position stand on nutrition and athletic performance. These consensus documents are complemented by a variety of reviews and position stands on fluid and physical activity, individual nutrients and sport supplements. General nutritional needs for physical activity Good nutrition assists in the ability to train intensely, as well as in muscle recovery and metabolic adaptations to endurance exercise. Adequate energy should derive from a wide variety of available foods that provide carbohydrates, proteins, fat and micronutrients. Energy and energy availability In most instances, a well-balanced diet should be sufficient in energy in order to maintain the energy balance in individuals with increased energy requirements because of physical activity. However, it might be challenging to meet the energy needs of athletes with a high body weight and height, i.e. larger athletes and athletes who partake in high-volume intense training. A negative energy balance is common in endurance athletes, such as runners, cyclists, swimmers and triathletes, as well as in sports in which dietary restriction is part of the strategy to modify body composition and size, such as gymnastics, skating, dancing, wrestling and boxing. These athletes sometimes attempt to lose weight too quickly and in mismanaged ways. Historically, female athletes are more prone to eating disorders, which lead to a disturbed energy balance. A negative energy balance in female athletes can lead to the development of the female athlete triad, which includes disturbed eating patterns, menstrual disorders and low bone mineral density. It is possible for a female athlete to become energy deficient without having a clinically diagnosed eating disorder. Apart from this, high intensity training can decrease appetite and change hunger patterns. Some athletes may be uncomfortable eating meals before exercise because of gastrointestinal discomfort.

Travel and training also influence food availability and safety, and careful planning around travel schedules is of vital importance. Insufficient energy intake can result in weight loss, especially of muscle mass; injury, illness, increased prevalence of overtraining syndrome and ultimately decreased exercise performance. To overcome this, athletes should focus on maintaining an energy balance to suit their energy expenditure and have 4-6 meals per day, including nutrient dense food. The use of low-risk supplements, such as liquid meal replacements and multivitamin and mineral preparations, can also be considered.

Macronutrient requirements:

Carbohydrate requirements Habitual or daily carbohydrate intake is essential in physically active individuals, and should be timed according to training sessions in order to ensure optimal pre-workout nutrition, as well as to encourage recovery post workout. If this is not possible during the day, the intake should be tailored according to individual preference and tolerance, provided that the total daily requirements are met Daily carbohydrate requirements Muscle glycogen and blood glucose are the primary sources of energy for contracting muscles. An optimal dietary carbohydrate intake enhances recovery and optimises glycogen stores for the next training session. The habitual dietary requirement for carbohydrates differs according to the amount and intensity of training and should focus on including more complex carbohydrates of low-moderate glycaemic index.Carbohydrates before exercise The limited glycogen stores in the body will only last for approximately 90 minutes to three hours during moderate- to high-intensity exercise.2 Carbohydrate loading is a strategy that involves changes to training and nutrition which can maximise muscle glycogen stores prior to endurance exercise lasting longer than 90 minutes. This strategy elevates muscle glycogen stores and has been found to increase endurance and exercise performance.

Carbohydrates during exercise Common complaints during endurance events include muscle fatigue and hypoglycaemia, often as a result of low muscle glycogen stores. Therefore, an increase in liver and muscle glycogen stores, as well as optimal fluid intake, is needed for peak performance to be achieved. Symptoms of suboptimal carbohydrate intake include low levels of energy, heavy legs, fatigue or "hitting the wall", a slow rate of recovery, loss of concentration, dizziness, irritability and fainting. Ingestion of carbohydrates is recommended during exercise. The type, amount and timing of carbohydrate intake during exercise is important, and should be tailored to individual preference.

Carbohydrates after exercise Carbohydrate intake is mainly responsible for increasing glycogen stores. Available evidence indicates that ideal levels of carbohydrate intake optimise muscle glycogen resynthesis. Speedy refuelling is particularly important when there is less than eight hours of recovery time between events or training sessions

Protein requirements Dietary protein requirements are elevated with strength, speed or endurance training. Energy intake, exercise intensity and duration, ambient temperature, and gender and age also influence protein requirements. There are increased requirements in the case of strength or resistance training because protein supports muscle protein synthesis, reduces muscle protein breakdown and repairs muscle damage. Endurance exercise increases leucine oxidation. Therefore, endurance athletes may have slightly higher protein requirements than their sedentary counterparts.

Daily protein requirements According to the DRIs, and more specifically, the recommended dietary allowance (RDA), the general protein requirement for a sedentary person is 0.8 g/kg BW/day. Incidentally, this requirement suffices for general fitness and can be slightly elevated to 1.0 g/kg body weight/day.

Protein before exercise The ACSM recommends that a moderate amount of protein is added to the pre-event meal. No specific guideline on ingestion of protein before exercise is included in the consensus documentProtein during exercise The ACSM states that evidence pertaining to the benefit of the addition of protein to carbohydrate solutions during exercise is inconclusive. No recommendation is made in this regard in the consensus document.Protein after exercise After exercise, the ACSM recommends that the primary goals of recovery should be to provide sufficient fluid, electrolytes, energy and carbohydrates to replace muscle glycogen stores and facilitate recovery. The addition of proteins can provide amino acids for the maintenance and repair of muscle protein, but no specific guideline has been provided by the ACSM to include protein as part of the recovery programme after exercise.

Fat requirements the fat requirements of athletes are similar, and are slightly higher than those in non-athletes. It is important to consume adequate amounts of fat to ensure optimal health, maintenance of energy balance, optimal intake of essential fatty acids and fat-soluble vitamins, as well as to replenish intramuscular triacylglycerol stores. The amount of required fat depends largely on the training status and goals of the athletes.Sports food and supplement requirements The ACSM has concluded that "athletes should be counselled regarding the appropriate use of ergogenic aids. Such products should only be used after careful evaluation for safety, efficacy, potency, and legality". The ISSN 2010 review notes that while some supplements might have a beneficial effect on athletic performance, no amount of supplementation will compensate for inadequate dietary intake. According to this consensus document, supplements are categorised in the following manner according to safety and efficacy: Apparently effective and generally safe: These supplements include weight-gain powders, creatine, protein, EAAs, lowcalorie foods, ephedra (a banned substance), caffeine, water and carbohydrate-electrolyte solutions, sodium phosphate and bicarbonate and beta-alanine.Supplements that are possibly effective: These include β-hydroxy-β-methylbutyrate in untrained subjects, branched chain amino acids (BCAA), calcium, conjugated linoleic acid (CLA) and green tea extract. Supplements whose effectiveness is too early to tell: The list extends to α-ketoglutarate, α-ketoisocaprate, ecdysterones, growth hormone-releasing peptides and secretogues, ornithine- α-ketoglutarate, zinc-magnesium aspartate, chitosan, phosphatidl choline, betaine, Coleus Forskolin, dehydroepiandrosterone (DHEA), psychotropic nutrients or herbs and medium-chain triglycerides. Supplements which are apparently not effective or are dangerous to use: Examples of such supplements are glutamine, smilax, isoflavones, sulphopolysaccharides, boron, chromium, CLA, gamma oryzanol, prohormones, tribulus terrestris, vanadium, calcium pyruvate, chitosan, L-carnitine, phosphates, herbal diuretics, ribose and inosine.

Conclusion

The aim of this review was to summarise and critically analyse key concepts, elements and guidelines from the ACSM, ISSN and IOC consensus documents. No single consensus document provides all the necessary guidelines and recommendations needing 16 Review Article: Sport nutrition: A review of the latest guidelines for exercise and sport nutrition S Afr J Clin Nutr 2013;26(1) for consultation with an athlete with regard to sport nutrition. Therefore, a combination of these and other guidelines should be used to individualise the nutritional management of athletes. Apart from the abovementioned guidelines and recommendations, sport-specific nutritional strategies should also be implemented in training programmes to aid in exercise, sports performance and recovery.30,36-39 A nutritionally complete, balanced diet should provide ample amounts of energy, carbohydrates and protein to ensure sustained exercise performance and optimal nutrition to support exercise performance.

References

- Maughan RJ. Abstracts of BASES (British Association of Sport and Exercise Sciences 2011. September 5-8, 2011. Colchester, United Kingdom. J Sports Sc. 2011;29 Suppl 2:S1-S132.
- Kerksick C, Harvey T, Stout J, et al. International Society of Sports Nutrition position stand: nutrient timing. Int J Soc Sports Nutr. 2008;5:17 [homepage on the Internet]. c2012.
- Kreider RB, Wilborn Cd, Taylor L, et al. ISSN exercise and sport nutrition review: research and recommendations. Int J Soc Sports Nutr. 2010;7:7 [homepage on the Internet]. c2012. Available from: 4. Position of the American Dietetic Association, Dietitians of Canada and the American College of Sport: Nutrition and athletic performance. J Am Diet Assoc. 2000;100(12):1543- 1556 [homepage on the Internet]. c2012. Available from: http://download.journals.elsevierhealth.com/pdfs/journals/0002-8223/PIIS0002822300004284.pdf
- Rodriquez NR, DiMarco NM, Langley S. Position of the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and athletic performance. J Am Diet Assoc. 2009;109(3):509-527 [homepage on the Internet]. c2012. Available from: http://journals.lww.com/acsm-msse/Fulltext/2009/03000/Nutrition_and_Athletic_Performance.27.aspx
- Sawka M, Burke L, Eichner R, et al. Exercise and fluid replacement. Med Sci Sports Exerc. 2007;39(2):377-390.[homepage on the Internet]. c2012. Available from: http://www. acsm-msse.org
- Burke LM, Castell LM, Stear SJ. BJSM reviews: A-Z of supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance Part 1. Br J Sports Med. 2009;43(10):728
- Maughan RJ, Depiesse F, Geyer H, et al. The use of dietary supplements by athletes. J Sports Sci. 2007;25 Suppl 1:S103-S113.
- Claassen A, Meltzer S, Havemann-Nel L, et al. Position statement of the South African Institute of Drug Free Sport (SAIDS) on the use of supplements in sport in adults [homepage on the Internet]. 2011. c2012. Available from: http://www.drugfreesport. org.za/wp-content/themes/dfs/pdf/SAIDS%20Sport%20SupplementsPosition%20 Statement.pdf
- International Olympic Committee (IOC) consensus statement on sports nutrition 2010. J Sports Sci. 2011;29(SI):S3-S4.
- Loucks AB, Kiens B, Wright HH. Energy availability in athletes. J Sports Sci. 2011;29(S1):S7-S15.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp29-33
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Problems, Memories and Olympic legacy in Olympic Movement

Shakeel Ahmad Shahid.
International Olympic Academy Olympia Greece
Lecturer in Sport Sciences and Sport Management
Govt M.D College 41 JB Faisalabad Pakistan.
Fellow of NIFS International Sports Academy Kanoya Kagoshima Japan.
Visiting Assistant Prof in Ripha International University Faisalabad Pakistan.
Email. Profshakeel2@gmail.com
Ms Kauser Perveen. Lecturer in Sport Sciences and P.E Eastern College Faisalabad.
Fellow of TIAS International Academy for Sport Study Tokyo Japan.
Ms. Fehmida Ayub
Lecturer in Sports Sciences and P.E G. C Women University Faisalabad Pakistan.
Ms. Mehwish Rani.
Lecturer in Sport Sciences Pioneer College Faisalabad Pakistan

Abstract.
As everyone knows that the Legacy is an important issue because much of the power of the Olympic Movement derives from its sites and symbols and its ancient heritage. This paper will review and analyzed the problems, memories and Olympic Legacy as It is one of the strengths of the International Olympic Committee (ICC) that it has care-fully nurtured and guarded Olympic legacy at its central site, Lausanne, where the Olympic Museum documents both the history and ideals of the Olympic Movement.
Key Words: Olympic Legacy, Memories, Problems, Games 1896,

Introduction.
From the starting of the Olympic Games since the Games were revived in 1896, has some form of legacy whether it be in the form of buildings, monuments, art, galler- ies and museums, repositories and archives, stamps, souvenirs, memorabilia, plaques, and even street names. Then there are the local Olympic champions who are living reminders of a city's and country's Olympic experience. There are also oral memories and stories of the Games that are treasured by individual citizens. More mundane legacy includes debts (and occasional profits) for a city and its tax- payers. Most cities have some post-Games ceremonies to mark anniversaries of the Games, which are, in part, attempts to recapture some of the magic of the Olympic moment and to place the Olympics in the history of the city. All of the above forms of legacy emonstrate that a particular city has a unique status - that of an Olympic city. It is one of only 21 cities on four continents that have earned the right to stage the Summer Games, or one of 17 other cities that have staged the Winter Games. There is also an elite group, which have earned the right to stage the Games twice: Athens, London, Los Angeles and Paris (Summer Games), and Innsbruck, Lake Placid and St Moritz (Winter Games).
Legacy varies enormously from city to city. The organizers of the 1896 Games restored the ancient Panathenian Stadium, using pure marble from Mount Pentilicous, the quarry site which provided the marble in the stadium's original construction in 330 BC. The stadium marble, which glistened brilliantly in the sun, added to the sense of occasion when the Games began. The major event at prelimi- nary ceremonies, the day before the Games, was the unveiling of a life-size statue of Georgios Averoff, in front of the stadium.

Averoff's donation of approximately one million drachmas enabled Athenians to restore one of its most historic sites (Howell and Howell, p. 6) and to create a grand monument for the modern Olym- pics. Money from the generous benefactor also enabled Athens to build a shooting gallery, a velodrome, and a pier for spectators. The "legacy" of the 1900 Paris Olympics, by contrast, was one of "confu- sion and controversy" because its organisation was so chaotic (Howell, p. 17). Ini- tially it was Coubertin's dream to "reconstruct the ancient site of Olympia at the exposition - its temples, stadia, gymnasia, and statues" (Findling and Pelle, p. 13) but the organisers decided to scrap these plans referring instead to showcase French culture and civilisation. Because the Olympic Games had such a low pro- file, there were no special athletic facilities: swimming and diving took place in the polluted River Seine and track and field was performed in the Bois de Boulogne, the private property of the Racing Club of France. The Olympics occupied this site on a temporary basis and the organisers were allowed few liberties with this attrac-tive property. There was a line of trees between spectators who sat in a hastily-erected and temporary grandstands and it was disconcerting for discus and javelin athletes when their throws ended up in wooded areas. The 1900 Games, which were lost in a world fair, left no footprints on Paris, there were no monuments, and little memorabilia. Not even the mem- ory of the Paris Olympics has been treasured: one Australian athlete, Stan Rowley, described the Games as a "HUGE JOKE": "to treat these events as world's championships would be really an insult to the important events they are sup- posed to be" (Howell and Howell, p. 17). Although the St Louis Games of 1904 also suffered, because it was an adjunct of an exposition, this city has attempted to take some pride in its Olympic legacy. An Olympic Museum has been created to commemorate the city's Olympic involvement.

The Growing Status of Olympic Movement:

Reflecting the growing status of the Olympic movement, legacy was built to last by the time of the Stockholm Games in 1912. A stadium, which was specifically erected for the Games in the royal zoological garden, was a "fine edi-fice ... with mighty arches, vaults, and towers" and could accommodate 22,000 spectators. The Swedish architect, Torben Grut, preferred to create "a new style that reflected practicality and the Northern European tradition" rather than imitating Greek art (Findling and Pelle, p. 42). The stadium had an ongoing purpose in that it was constructed both for sport and festivals of all kinds and, in winter, could be converted into a skating rink. The emergence of the cultural Olympics was yet another facet of an interest in legacy. It was a movement which was dear to coubertin's heart: he sent a circular to IOC members in 1906 convening an advisory conference "to come and study the way in which art and literature could be included in the celebration of the modern Olympiads." It was an attempt to "reestablish the original beauty of the Olympic Games ... [when] ... the fine arts were combined harmoniously with the Olympic Games to create their glory" (Müller, pp. 69-70). Although culture has struggled to compete with sport in the Olympics, the conscious development of a cultural tradition is an important part of the Olympic legacy. There is also great variation in terms of legacy as to whether an Olympic stadium was built simply to serve the immediate pragmatic purpose of staging the Games or whether it was built to last beyond the Games so as io convey a longer term Olympic vision. Held just after World War I, the Antwerp Games of 1920, was hastily organised and suffered from a shortage of money and materials. Athletes were housed in primitive accommodation in local schools. The rebuilt Beerschot Stadium had some impressive-looking "Greek decoration, including a grandiose arch and columns," but it was not made to last because the decorations were made of plaster (Renson, p. 81). Thoy had disappeared within a year of the Games.

Recent Analysis:

In recent decades there have been more extravagant attempts to create permanent Olympic monuments and pre- cincts, The ambition of Montreal Mayor Jean Drapeau was "to create a lasting symbol of la survivance, the will of French Canada to survive two centuries of English Canadian attempts at assimilation" (Findling & Pelle, p. 154). Some of the extravagant monuments included an Olympic Stadium which included a "retractable roof and a fifty-storey tower" and a spectacular and innovative velodrome which consisted of a "giant arc of roof sweeping over glass walls." The main leg- acy of Montreal, however, was a massive debt incurred due to the large capital costs, a debt which still has not been paid. It is ironic that while the Montreal organisers have been criticised for their extravagance and many of the new facilities proved too costly to maintain for sports, the Olympic precinct has proved successful as a tourist attraction.

Barcelona, by contrast, planned a permanent Olympic precinct which included a reconstructed main stadium, a magnificent indoor facility, and an Olympic gallery, run by a foundation. Although it was

created in 1988, four years before the Games, the Centre for Olympic Studies at the Autonomous University of Barcelona is part of the city's legacy. It is a legatee in two senses: it is part of Barcelona's Olympic heritage and it is also one of a number of bodies that over- sees and maintains the city's Olympic legacy. Barcelona attempted to use the Games to enhance the profile of the city: $8.1 million was spent on new roads, an airport, hotels, telecommunications, and a new seafront resort. There is an interesting history yet to be written as to what happens to Olympic facilities (such as stadia), artifacts, and material used in opening ceremonies, after the Games. Atlanta's main stadium has been converted back to a ball park and the cauldron, home of the Olympic flame during the Games, "was dismantled and moved up the street so it wouldn't mar the sightlines of the Olympic stadium turned baseball park" (Atlanta Journal and Constitution 7 Nov. 1997). Some Olympic facilities, such as Montreal's velodrome, have been given a new non-sporting use. The velodrome is now an aquarium. The vision that inspired developments at other Olympic sites has not always been sustained, resulting in decline and degradation in some instances. Melbourne's Olympic village was built on 59 acres at Heidelberg, about 13 kilome- tres from the main stadium. The Olympic program described how the 840 brick and concrete houses were painted in "gay modernistic colours." The desired effect was that of an English village. £60,OOO was spent on landscaping the site. However, by the 1990s the model village had degenerated into a suburban slum. One writer commented in 1993: If the Olympic spirit flickers there still, it is for the endurance events - endurance of poverty, crummy housing and, above all, of being consistently marked down as a failure. For even the staunchest sup-porters of this blighted public housing estate ... concede that while it was constructed as a model village for winners, the reputation that has lingered longer is that of a dumping ground for losers (Bagnall, p. 46).

Olympic Legacy and Issues:

Time in an Olympic city can be divided into three periods. There is the pre-Games period which can last for a decade or even two: developing a successful bid plan and then organizing the Games themselves. Then there is the dura- tion of the Games, three weekends and two weeks - a mere 16 or 17 days - which pass for most in a twinkling of an eye. The post-Games period is by far the longest; it stretches for decades after the Games. However, it is clearly the least-planned period. One year after the Atlanta Games there was a revealing headline in the Atlanta Journal and Constitution: "Remains of the Games: One year later, we're still looking for a legacy." The article suggested that Atlanta lacked a focal point for post-Games celebrations: We don't even have a centerpiece for the one-year anniversary celebration. At Centennial Olympic Park, the heart and soul of the Games even after the bombing, we're still laying pipe and pushing dirt. Few of us have ventured back, and most of the park remains cordoned off by the chain-link fence. Had the park been finished, I would have been a very strong advocate of a one-year celebration that tried to bring back the magic, we all experienced, commented Billy Payne (AJC 13/7/97). So there were just a sprinkling of events to mark Atlanta's first anniversary. There was an exhibition of Olympic memora-bilia opened at the Atlanta History Centre, a 5 km fun run, a parade, a round-the- clock showing of Bud Greenspan's offi-cial Olympic film, and a rededication of the Olympic cauldron.

Helen Wilson provides an initial starting point for a consideration of the issue: What, then, is an Olympic city? It must, of course, have the sporting infrastructure to be able to accommodate the events, providing the technical conditions to induce personal best performances from the athletes, provide a sufficient crowd to give the sense of a mega-event, and to make good television. The main stadium should particularly signify newness and monumentality in itself. The city must have the transport and tourism infrastructure to be able to accommodate esteemed visitors and participants. It must have the communications facilities to be able to shoot, package and distribute footage and com-entry instantly to the media of over 200 nations (Wilson, p. 616).

Peak experience:

One important public issue is how to best commemorate an event that will loom large in the public imagination. For many people in a city or other parts of the country, a home Olympics will be a peak experience in their lives. There is a need for the public to re-connect with that experience after the event. Many will want to re-live the magic of the Olympic moment. "Touching" the Games is even more important for those who watched the Games on television, they will want to assure themselves that their Olympic experience was real. Post-Olym-pic; tourists will want to visit the site where a particular local athlete performed heroically.

Mourning the Games:

After the Games are over many residents will feel a great sense of loss that the Games have come and gone and that they can no longer look forward to the Games. One year after the Games in Atlanta, volun-

teer Peggy Mayer felt unsatisfied and even a little depressed: "It was all over so quickly, like being in fifth gear and trying to come to a screeching halt" (AJC 13/7/97). Part of this represents a post-Olympics depression, coming back to the hum-drum routine of life after the all-too brief "high" of the Olympics. The post-Olympics depression is short-term but very real problem, which should be addressed by the planners. A sense of loss, mourning the Games, can be a longer-term problem. Once the Games are over, the city loses part of its identity, as the attention of the world media shifts to another city. Legacy is a constructive and positive way of deal-ing with mourning. A city has to deal with its "death" - when the Games have gone - in the same way an individual deals with the loss of a close family friend. Symbols, rituals, and memory are all part of the healing process. One constructive way of approaching this issue is to suggest that while Sydney or some city has "lost" the Games - and they are unlikely to return in anyone's lifetime - the memory of the Games still are alive and Sydney will forever be an Olympic city. Legacy is one way that "memory" can be reconstructed in a positive way.

Memories.

The dedication of Olympic sites and the establishment of Olympic museums is one way in which the public can "touch" the Games after the event and recapture some of the magic of the event and deal with sense of loss. The trend to establish Olympic museums is a relatively recent phenomenon, but there is considerable evi-dence that Olympic museums at Calgary and Barcelona have been successful, both from the point of view of attracting Olympic tourists and in enhancing Olympic education. At Calgary there is an ongoing and attractive educational program which utilizes the Games' site effectively. There is a need, then, to develop a strategic plan for the establishment of Olympic sites in the city after the Games. Ideally each city should have an integrated plan for the location of Olympic papers, memorabilia, and displays. No city has yet constructed a one-stop research, documentation, and display stop. Barcelona's Olympic legacy is spread over three sites: the Olympic Galleria (at the main Olympic precinct), the city library (which holds most of the Olympic papers), and the Centre for Olympic Studies, which is involved in research and documentation of the Games. If it were located at a central point in the Olympic precinct it would be a very attractive meeting-place for a great variety of Olympic visitors and researchers. Galleries, museums, archives, and Centres for Olympic Studies, set up during, or even after the Olympic event, can enhance the Olympic precinct and provide it with a continuing life and liveliness. They all, in various ways, represent means of coming to terms with the past, questioning it, and even profiting from it.

Core Legacy: An important issue to consider is: what constitutes the core legacy? No one would suggest that all the city's many Olympic venues should be recognized as part of legacy. So there is the practical issue to decide what should be retained in its original form, what should be modified or have a change of use, and what should be discarded, demolished or sold off. In the case of Sydney, venues within the main precinct at Olympic Park will have greater long-term significance than those on the periphery (at Penrith or Holsworthy). However, even sites which will have a complete change of use - the Olympic village will become a suburb - may be enhanced with appropriate "marking," whether this be in terms of plaques, street names or public art.

Guardians of Legacy: Legacy beyond the Games is a daunting task because it requires a post-Olympics vision to flow out of the Olympic experience; it requires some form of co-ordinated strategy and some "guardians" of legacy who will maintain the best traditions of the city's Olympics. Costs: While some may look at legacy as a costly extravagance and as a distraction from the main effort, invest-ments in legacy may provide a way of recouping some investments in the Games. There is an enduring interest in the Games after the event which re-emerges gradually - after a dramatic fall in interest at the end of the Games - over follow-ing weeks and years. Barcelona has proved that a city which plans its legacy well can reap the benefit over a number of years.

Problems of Olympic Legacy:

There are a number of reasons why it is difficult for most cities to plan for life beyond the Games.

(1) During the rush to organize the Games, there is all too little time to consider the post-Games plan. At a time when legacy comes under serious consideration, after the Games many of the important local Olympic institutions, including the local organizing committee, are winding up. There is a great danger that key decisions will be made "on the run" and on an ad hoc basis.

(2) Legacy is frequently shelved because it seems to represent a range of additional costs for budgets that are already stretched in the pre-Games period. Unfortunately, many planners fail to see that while legacy will require some additional outlay, it is a way of recouping some Olympic costs (through tourism). It is also a way of recouping some costs which have already been spent on facilities.

(3) Legacy is often looked upon as a side issue, something that will be tackled after the Games. Because it is not seen as a central issue, few cities have well-developed post-Games plans.
(4) The concept of an Olympic city, so far as it exists, is an implicit rather than an explicit one and is left to each city to interpret in its own way. Barcelona has made a point of preserving its Olympic precinct, whereas Atlanta's has been largely dismantled.
(5) Legacy is also information about how best to stage the Games. It has been customary for the organisers of the next Olympics to "look over the shoulders" of those staging a current Games. However, the bulk of Games' "knowledge" is not passed on in any systematic way to the next Olympic city, which is left with the immense task of "reinventing the Olympic wheel."

The Case for Olympic Legacy: Far from being a side issue, legacy is a core issue to the staging of the Games. Every city has a core set of objec-tives (which are usually unstated and mostly unarticulated) as to why the city should want to host the Games. For the city of Melbourne, the 1956 Games: . . . may be seen as a curtin-raiser to modernist Melbourne. Between 1950 and 1970, Melbourne became . . . the fastest growing capital in Australia. Perhaps more than any other Australian city it exemplified the Fordist paradigm of urban growth - high investment in manufacturing, especially of protected con- sumer products such as cars and electrical goods, high levels of immigration, high levels of car and home ownership and high levels of government intervention in the provision of infrastructure . . . The Games were pivotal to the process of self-definition through which the city, and especially its business and political elite, adjusted to the new paradigm (Davison, p. 65). The General Director for Sport for the Generalitat de Catalunya outlined Barcelona's plan to use the Olympics for the benefit of the city. He was far more explicit: The Olympic Games permitted the transformation of the city, providing it with those services it so much needed, and the heavy investment that would otherwise have taken so many years to have come. Barce-lona once again turning its face to the sea, the Olympic village, the airport, the roadways and communi- cations, the hotel network, all of which were essential to its becoming a competitive city in the scenario of to-day's Europe (Moragas and Botella, p. 264). Implicit in the bid to win the right to stage the Games are many unstated promises. Given that the local community invests so much in the Games, it is important that the wider benefits of legacy should be canvassed and articulated. Too often, costs and benefits narrowly focus on economics. Legacy involves casting the gaze wider, to poetry and art, architecture, the environment, information, and many other non-tangible factors.

Conclusion:

Although the Legacy is very important in the Olympic Movement but the Olympic games it self are very costly and temporary thing its like a Shuttle shoot up in the sky to go in the moon a very Expensive shuttle , and then it's gone . Maybe the best thing is to forget about the Olympics and go about the business of becoming a first-class city. However positive legacy does not simply happen by itself. It needs to be carefully planned and embedded in the host city's vision from the earliest possible stage and integrated within the project at every step so that after staging the games in the host cities the memories, problems, could be very low and in this regards IOC the governing body of the Games needs to be ensure more effectively the implementation of the Olympic Legacy in the host City of the Country to save the Vision of IOC in Future.

References

Diane Bagnall, "Hell of a Village," Bulletin, 9 November 1993.
Geoffrey Ballard, Nation within Nation: The Story of Olympic Village Heidelberg: Olympic Games - Melbourne, Allanby Press, Melbourne, 1997.
Graeme Davison, "Welcoming the World: The 1956 Olympic Games and the Re-presentation of Melbourne," Australian Historical Studies, no. 109. October 1997, pp. 64-77.
John E. Findling and Kimberly D Pelle, Historical Dictionary of the Modern Olympic Movement, Greenwood Press, Westport, 1996.
Allen Guttmann, The Olympics: A History of the Modern Games, University of Illinois Press, Urbana and Chicago, 1994.
Reet and Max Howell, Aussie Gold: The Story of Australia at the Olympics, Brooks Waterloo, Melbourne, 1988.
Miquel de Moragas and Miquel Botella, eds, The Keys to Success: The Social, Sporting, Economic and Communications Impact of Barcelona '92, Barcelona, 1995.
Norbert Müller, One Hundred Years of Olympic Congresses, 1894-1994, IOC, Lausanne, 1994.
Roland Renson, The Games Reborn: The VIIth Olympiad - Antwerp 1920, Pandora, Ghent, 1996.
James Weirick, "A Non-Event- Sydney's Olympics," Architecture Australia, vol. 85, no. 2, Mar./Apr. 1996, pp. 80-3.
Helen Wilson, "What is an Olympic City- Visions of Sydney 2000," Media Culture and Society, vol. 18, 1996, pp. 603-18.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp34-36
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Family type and its Impact on Sportspersons Disordered Personality

Prof. C.D. Agashe* Vijay Kumar Chaurasiya**
* SoS in Physical Education, Pt. Ravishankar Shukla University,Raipur C.G.
** Research Scholar, SOS in Physical Education, Pt. Ravishankar Shukla Univ.Raipur C.G.

Abstract
Present study was carried out to study personality disorder among sportspersons in the background of type of family. To conduct the study 130 sportspersons (Average age 24.82 years) of both the sexes who took part in national level competitions were selected as sample. Out of these selected subjects, 65 sportspersons belonged to nuclear family while 65 sportspersons came from joint families. Personality disordersof selected subjects was assessed by Jodhpur Multiphasic Personality Inventory prepared by Joshi and Malik (1981). It was found that personality disorders namely anxiety, conversion-reaction, hysteria-dissociate, and phobia respectively was found to be in higher magnitude in sportspersons belonging to nuclear families as compared to their counterparts i.e. sportspersons belonging to joint families while other forms of personality disorders viz. obsessive-compulsive reaction, depression, neurasthenia and social introversion respectively was not significantly affected by sportspersons family structure. It was concluded that type of family influencing factor as far as disordered personality in sportspersons is concerned.

Introduction
Participation in sports is known to develope positive personality characteristic in a person. On the other hand studies have shown that athletes performing at sometimes suffer from personality disorders namely neurosis, anxiety, phobia, depression etc.,Due to excessive pressure and intricacies to succeed in modern competitive sports environment. Personality disorder refers to a class of personality types and enduring behaviors associated with significant distress or disability, which appear to deviate from social expectations (DSM-IV, 2000). A class of mental disorders characterized by enduring maladaptive patterns of behavior, Cognition, and inner experience, exhibited across many contexts and deviating markedly from those accepted by the individual's culture is known as disordered personality. These patterns develop early, are inflexible, and are associated with significant distress or disability (American Psychiatric Association, 2013).
The pressure to succeed at all cost generates from coaches, fans, financial matters and self pride. In this context it is worthwhile to know the role of family be it joint or nuclear on sportspersons personality disorders. This is even greater significance because so far researchers like Eric et al. (2005), Kamm(2008), Sohrabi (2011), Schaal et al. (2011), Quadri and Vidhate (2012), Masmoudi (2015) have investigated major personality disorders in athletic population but so far it has not been investigated in the light of family type. Since sportspersons in India comes from joint or nuclear families, it would be interesting to assess personality disorders between sportspersons coming from nuclear and joint families.
Hypothesis
It was hypothesized that there will be a significant difference on personality disorder among sportsperson belong to nuclear family and joint family.

Methodology :-

The following methodological steps were taken in order to conduct the present study.

Sample :-

To conduct the study 130 sportspersons (Average age 24.82 years) of both the sexes who took part in national level competitions were selected as sample. Out of these selected subjects, 65 sportspersons had from nuclear family while 65 sportspersons belong to joint families. The selection of sample was based on convenience sampling technique.

Tools:

Jodhpur Multiphasic Personality Inventory :

Jodhpur Multiphasic Personality Inventory prepared by Joshi and Malik (1981) was used to assess personality disorders in selected subjects. It consists of 283 items. Out of the twelve personality disorders scoring was done for anxiety, obsessive compulsive reaction, conversion reaction, hysteria dissociate, phobia, depression, neurotic depression and social introversion respectively. All the coefficients of stability are of sufficiently high level for this inventory.

Procedure:Administration of Jodhpur Multiphasic Personality Inventory prepared by Joshi and Malik (1981) was administered and supervised by researchers on selected sportspersons. On there convenience and availability of subjects. After scoring of responses, data pertaining to specific personality disorders was tabulated according to their respective groups.

To find out the effect of family type on specific personality disorders among sportspersons, 't' test was used. Results depicted in table no. 1.

Result & Discussion

Table 1:Comparison of Personality Disorder among Sportspersons on the Basis of Type of Family

Personality Disorders	Sportspersons				t	Level Of Significance
	Nuclear Families (N=65)		Joint Families (N=65)			
	M	S.D.	M	S.D.		
Anxiety	40.00	18.00	36.00	15.00	6.15	2.5**
Obsessive-compulsive reaction	35.00	20.00	31.00	15.00	3.58	1.56(NS)
Conversion-Reaction	24.00	13.00	22.00	10.00	1.45	2.34*
Hysteria-Dissociate	8.90	5.40	7.60	4.70	2.45	3.23**
Phobia	11.00	7.00	9.30	5.90	1.09	2.35*
Depression	41.00	13.00	39.00	12.00	3.11	1.49(NS)
Neurasthenia	14.00	8.40	13.00	7.70	2.10	1.76(NS)
Social Introversion	42.00	9.40	39.00	9.80	1.06	1.09(NS)

* Significant at .05 level

** Significant at .01 level

NS Not Significant (p>.05)

A perusal of table 1 gives following inferences:

- Sportspersons belonging to nuclear families were found to be more anxious as compared to sportspersons belonging to joint families at .05 level of statistical significance. (t=2.50, p<.05)
- Conversion reaction, a dimension of disordered personality was found to be significantly in more magnitude in sportspersons from nuclear families as compared to sportspersons belonging to joint families at .05 level of statistical significance. (t=2.34, p<.05)
- Hysteria dissociate, a dimension of disordered personality was found to be significantly in more magnitude in sportspersons from nuclear families as compared to sportspersons belonging to joint families at .01 level of statistical significance. (t=3.23, p<.01)
- Phobia, a dimension of disordered personality was found to be significantly in more magnitude in sportspersons from nuclear families as compared to sportspersons belonging to joint families at .05 level of statistical significance. (t=2.35, p<.05)
- Depression, neurasthenia and social introversion did not show any significant variation across type of family in a group of sportspersons.

The result of the present study indicates in general more magnitude of disordered personality in sportspersons hailing from nuclear family as compared to their counterparts from joint family. Since both the group comprise of national level sportspersons it highlights the importance of family structure in curbing disordered personality. This can be attributed to the emotional fulfillment and upbringing related to joint families. There is always someone in the family to talk and share problems. This helps a person to release tension and unwanted thoughts. This may be one of the reason for sportspersons from joint families having lesser magnitude of personality disorders as compared to sportspersons from nuclear families.

Conclusion

On the basis of results, it may be concluded that magnitude of disordered personality in sportspersons is influenced by their belongingness of joint or nuclear family.

References

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), 4th edition, Text Revision. Washington, DC: American Psychiatric Association; 2000.

Eric, A.; Storch, J.B.; Killiany, E.M. and Roberti, J.W. (2005). Self-Reported Psychopathology in Athletes: A Comparison of Intercollegiate Student-Athletes and Non-Athletes. Journal of Sport Behavior; Vol. 28, Issue 1, p86.

Kamm, R.L. (2008). Diagnosing Emotional Disorders in Athletes: A Sport Psychiatrist's Perspective. Human Kinetics Journals, Vol. 2, Issue 2.

Masmoudi J, Trigui D, Feki I, Bâati I, Jaoua A. Athletic performance, self-esteem and temperamental profile: Which relationship? Tunis Med 2015;93:175-80.

Quadri, S.J. and Vidhate, N.J. (2012). A Comparative Study of Neurosis Dimensions among Successful and Unsuccessful Players. Golden Research Thoughts, Vol. 2, Issue 2, pp. 1-4.

Schaal, K.; Tafflet, M.; Nassif, H.; Thibault, V. and Pichard, C. (2011). Psychological Balance in High Level Athletes: Gender-Based Differences and Sport-Specific Patterns. PLoS ONE 6(5): e19007.

Sohrabi, F.; Atashak, S. and Aliloo, M.M. (2011). Psychological Profile of Athletes in Contact and Non-Contact Sports. Middle-East Journal of Scientific Research 9 (5): 638-644.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp37-41
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Effect Of Soccer Coaching Leadership Beheviour On Players' Team Cohesion In The Case Of Amhara National League Football Clubs.

Astatkie Bogale Kebede,
Phd Scholar, Bahir Dar University
Email Astatkiebogale@Yahoo.Com

Abstract
The purpose of this study was to investigate the effect of soccer coaching leadership behavior on players' team cohesion in the case of Amhara National League Football Clubs. A total of 54 participants,50 players,2 coaches and 2 team leaders, were involved in the study. The target clubs (AWWCE and BAHIRDAR KENEMA) were selected using purposive sampling method from 5 Amhara national league football clubs. Instruments that were used to investigate the findings of the study were questionnaires, field observation and semi structured interview. All quantitative data were analyzed using descriptive frequency and chi-square test method of analysis and the qualitative data were analyzed through thematically interpretation method of analysis. This study revealed that coaching leadership behavior adopted by ANLFC coaches had negative effect on the interpersonal and team cohesion of players. Leadership style, communication, decision making, performance measurement, training method and drills, treatment and encouragement of the coaches' leadership behavior were inhibits the interpersonal and team cohesion of the players. Based on the findings the researcher recommended that the coaches should update themselves with the current coaching science.
KEY WORDS: Leadership, Leadership behavior, Leadership style, Team cohesion etc

Introduction
Ethiopia was one of the first countries which started modern football in Africa, but the development of football in a country also in the region is not as it expected as to compare with other countries in the continent.
Leadership is an important component for developing cohesion in sports teams (Carron et al, 2005). It has been suggested that effective leadership is a vital contributor to member satisfaction (Reimer & Chellandurai,1995). One study, Riemar & Chellandurai, (1995) went further and examined the leadership behaviors' preferred and perceived by players depending on their position. They found defensive athletes perceived and preferred higher levels of social support and democratic and autocratic styles then the offensive athletes.
Barrow, (1977) defined leadership as "the behavioral process of influencing individuals and groups towards set goals" (p.232). Martens and Peterson (1971) corporate an effective leadership behavior can improve good team cohesion. So the concept of leadership behavior of a coach, team cohesion, success and commitment of the member of a team has been mentioned as integral component of soccer sport. Indeed, Horn (2002) posited that the style and behavior of the coach directly influences the success, motivation, group identity, self perception, and achievement behavior of athletes. Coaches with poor leadership qualities are not effective in their team cohesion and success. So this research aimed to answerer the following research questions :-
What impact does the coaches' leadership behavior have on team cohesion in individual athletes and team among Amhara National league football clubs?
How leadership behavior of the coaches helps to improve the interpersonal relationship of players?
What are the main factors that affect the coach's leadership behavior in order to bring his players' team cohesion and success?
Which mechanisms can help the coach towards creating and improving the players' team cohesion and success?

Significance of the Study

There is no research that has looked at coaching behavior of Amhara national league football clubs coaches. This survey study will serve as a preliminary study of the coaches' coaching behavior and over all coaching characteristics of Amhara national football coaches. It will also help as an eye-opening work on football coaches in the region to know what coaching behaviors are our coaches' exhibits and which is appropriate for their players or athletes. It's also a preliminary work for other researchers to start questioning the problem of the region's football and conduct further research. Unfortunately, there is no study to examine coaches coaching behavior and its contribution pattern in the region.

Methods:

Two clubs AWWCE (Amhara water work construction enterprise) and Bahidar kenema were selected purposefully taking to account based on their proximity to the researcher's resident for minimizing the scarcity of finance and time and to have got an opportunity to observe the training and competition of the clubs closely. In each selected clubs there were 25 players,1 coach, 1 vice coach and 1 team leader and the total population were 50 players, 4 coaches and 2 team leaders. The data of the research was collected from both primary and secondary source of data. According to Bless and Higson-Smith(2000), there are three common method of data collection, namely, observation, interviews and questionnaire. Interview is more appropriate to gain rich qualitative data from a small group. Patten(1990) suggested that these are subjects who can yield in depth information about the issue. There were likert scale , and open ended questionnaires which were developed by the researcher. The data that was gathered from both primary and secondary sources were analyzed by using both quantitative and qualitative methods of analysis. Statistical package for social science for windows (SPSS version-20) computer soft ware used in the study.

Results

Regarding with the players playing experience, 8(16%) of players had below 2 years,21(42%) had 2-5 years 20(40%) of players had 6-10 years of playing experience and 1(2%) of player had above 10 years of playing experience.

Similarly, the educational level of coaches ranges from certificate to first degree. This indicate most of the coaches had not good educational back ground, because at least the coaches at national super league level should have first degree in football coaching science. Likewise, with the coaching experience, coaches had 5-15 years, coaching experience. Regarding with the coaching license, one coach had "A" license, and the other had "B" license. Concerning on Impact of soccer coaching leadership behavior on players' team cohesion:- As the result shown, 48% of Amhara national super league football clubs coaches adopted the negative coaching leadership behavior and the rest 51.8% of the coaches were adopted positive coaching leadership behavior. Fielder(2002) contends that good leaders are flexible and they adopt their coaching behavior to situational factors. Chelladurai and Carron(1978) state that, If a coach adapts his /her behavior to comply with athletes' preferred behaviors the athlete may be more readily inclined to the coach through on impaneled team cohesion, commitment and performance. Preferred leader behavior refers to actual behaviors favored by athletes; athletes' perception of leader behavior are similar to leader's behavior and based upon the maturity of athletes and their current skill level.

When we see Status of team cohesion on players:- currently in Amhara national super league football clubs 61.1% of players' team cohesion were failed and the remaining 38.8% of players team cohesion were succeeded. A sport team is thus defined as "a collective of two or more individuals who possess a common identity, have consensus on a shared purpose, share a common fate, exhibit structured patterns of interaction and communication, hold common perceptions about group structure, are personally and instrumentally interdependent, reciprocate interpersonal attraction, and consider themselves to be a group" (Carron & Hausenblaus, 1998, pp. 13-14).

Discussion:

The aim of the study was to investigate the Effect of soccer coaches' leadership behavior on the players' team cohesion in the case of Amhra national super league football clubs.

Horn(2002), stated that the behavior of coaches directly influence the team cohesion, team success, motivational achievement behavior of athletes' and overall success of the team.

In terms of Decision on the interpersonal relationships of players with their coaches, the result shows that 33(61%) of the players had not good interpersonal relationship with their friends and coaches and the remaining 21(38.9%) of players had good interpersonal relationship with their coaches and their team mate.

In general the result showed that most of players had not good interpersonal relationship with their coaches and team mates. Cot and Gilbert (2009) coaching effectiveness are an alternative to leadership and relationship model.

From the coaches' good knowledge, skill and experience in coaching football perspective:- 13(24,1%) of the respondents were strongly agree with knowledge, skill and experience of the coaches in coaching football. From those players 6(11.1) of the respondent had not good interpersonal relationship and 7(13%) of the respondent had good interpersonal relationships. Hence, we can understand from the result the knowledge, skill and experience of the coaches in coaching football is very essential for interpersonal relationship of the players. Similarly, 14(25.9%) of the respondents were agree. Among those 8(14.8%) had not good relationship and the remaining 6(11.4%) of the respondent had positive interpersonal relationship. Likewise, on the issue, 9(16.7%), 16(29.7%), and 2(3.8%) of the respondents were responding undecided disagree, and strongly disagree respectively. Generally the result indicates thay the players have good interpersonal relationship when the coaches had good knowledge, skill and experience on the area, and the players have negative interpersonal relationship when the coaches have not knowledge, skill and experience in coaching football.

Concerning on the communication of coaches in training:-13(24.9) of the respondents were strongly agree on the coaches' communication effectiveness. From those respondents 7(13.8%) of the players had positive interpersonal relationship and the remaining 6(11.1%) of the respondents had not good interpersonal relationship. 15(28.6%),8(14.9%) and 15(27.8%) of the respondents were responded agree, undecided, and disagree. Regarding with the coaches' training style:- the result reveals that 9(16.7%) of the respondents were strongly agree that the coaches were adopt different training style depend on the need of the trainees and objective of the task. 19(35.2%),7(13.0%), 17(31.5%), and 2(3.8%) of the respondents were responded agree, undecided, disagree and strongly disagree. Though, the training style adopted by coaches had significant positive relationship with the interpersonal relationships of players. What may be an appropriate coaching style for one athlete may be an ineffective approach for others. Similarly, specific behavior by the coach may be more productive of certain outcome than others (Tinning1985).

The coach may be adopt either homogenous approach that treats all athletes equally or alternatively create heterogeneous style that provides different treatment to individual athlete.

Table1.Summary of the result (chi-square tests)

	Value	Df	Asymp. Sig.(2-sided)
Person chi-square	5.459[a]	2	.024
Likelihood ratio	5.652	2	.021
Linear by linear Association	3.483	1	.006
N of valid cases	54		

The p-value=0.024, which Is less than alpha-value =0.050, it implies that the researcher had enough evidence to reject the Ho, therefore the result indicated that the training style of the coaches are very important to improve the interpersonal relationship of players with their coaches.

For the question" do the coaches treat and encourage all the players equally:-10(18.5%), and 19(35.2%) of the respondents were answered strongly agree and agree respectively. From tha total 30(55.6) of the players that were answered strongly agree and agree14(25.9%) of the respondents had good interpersonal relationship and the remaining 13(24.1%) of the players had not positive interpersonal relationship.

From the total 25(46.3%) of the players that were answered undecided, disagree and strongly disagree, 19(38.2%) of the respondent had not positive interpersonal relationship and the remaining 5(9.3%) of the players were having good interpersonal relationship.

Table 2, Factors affecting the coaches' leadership quality in order to bring the players' team cohesion;-

No	Item	valid	frequency	percent	Valid percent	Cumulative percent
1	The coaches have good knowledge, skill and experience in coaching football.	Agree Disagree Total	21 33 54	38.9 61.1 100.0	38.9 61.1 100.0	38.9 100.0 -
2	Other coaching staff members are done their work cooperatively with the head coaches during training.	Agree Disagree Total	32 22 54	59.3 40.7 100.0	59.3 40.7 100.0	59.3 100.0 -
3	The short term contract of coaches and players are affect the coaches' leadership style.	Agree Disagree Total	26 28 54	48.2 51.8	48.2 51.8	48.2 100.0 -
4	Most players o the club are happy, stable and committed towards their clubs.	Agree Disagree Total	25 29 54	46.3 53.7	46.3 53.7	46.3 100.0 -
5	The difference of players by their experience and skill are negatively affecting their homogeneity.	Agree Disagree Total	54 - 54	100.0 - 100.0	100.0 - 100.0	100.0 - 100.0
6	The coaches make the decision free from the interference of the club managers.	Agree Disagree Total	23 31 54	42.6 57.4 100.0	42.6 57.4 100.0	42.6 100.0 -
7	The club has good internal atmosphere for the coaches and players to do their work effectively.	Agree Disagree Total	18 36 54	33.3 66.7	33.3 66.7	33.3 100.0 -

As indicated in the above table 2, for the question "do the coaches have good knowledge, skill and experience in coaching football" the majority of the respondents 33(61.1%) were answered agree. The respondents were also asked the question" do other coaching staff members do their work cooperatively with head coaches" accordingly, as indicated on item number 2, more than the average number of respondents,59.3% have reported " agree" and the remaining 40.75 of the respondents were answered „disagree". From this it is possible to understand the cooperative work of others coaching staff members not affecting the coaches' coaching leadership behavior .As it can be seen in the above table, "the short term contract of coaches and players were affecting the leadership behavior of the coaches" majority of the respondents27(50%) have reported as "disagree" and 27(50%)respondents were reported as" agree". The result indicated that the short contract of the coaches and players were affecting the coaches' leadership behavior. For question number4-7 the analysis is given in the above table, so one can easily understand it what it looks like.

According to Horn(2008) proposed the working model of coaching effectiveness as an alternative to leadership and relationship model, this model proposes that there are three important determining factors for coach behaviors'; the socio-cultural context, the organizational climate, and the coach's personal characteristics.

Conclusions

The innermost attention of this study was to investigate the effect of soccer caches' leadership behavior on the players' team cohesion in the case of Amhara national league football clubs. To conduct this research, a total of 54 participant 50 players, 2 coaches, and 2 team leaders, in Amhara national league football club were involved in the study. The target clubs (AWWCE, & BAHIRDAR KENEMA) were selected using purposive sampling method from 5 Amhara national league football clubs. The major instruments that were used to investigate the findings of the study were questionnaires, field observation, and semi structured interview were held for coaches and team leaders. The major factors that affected the coaches leadership behavior in order to brining his/her players team cohesion were limited knowledge, experience and skill of coaches in the respective area, financial scarcity, lack of experts in the coaching staff, the interference of the clubs, negative behavior of players, the scarcity of training materials and the facility, payment of coaches, players, and the interpersonal relationship of the players and the coaching staff were negatively affected the coaches leadership quality in order improve to his/her players' team cohesion.

Recommendation

Based on the findings of the study, the following are the possible areas of intervention suggested as recommendation:- The first major practical issues of the Amhara football federation would design strategy to improve the coaches and players knowledge towards sport psychology and the coaches should update themselves with the current coaching science knowledge, coaching style and leadership behavior

References

Barrow, J.C. (1977). The variables of leadership: A review and conceptual framework. *Academy of Management Review*, Vol.2, 231-251.

Carron, A.V. (1982). Cohesion in sports: Interpretations and considerations. *Journal ofSport Psychology, 4*, 123-138.

Carron, A.V., Colman, M.M., Wheeler, J., & Stevens, D. (2002). Cohesion and performance in sport: A meta analysis. *Journal of Sport & Exercise Psychology, 24*, 168-188.

Chelladurai, P. (1984). Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in varying sports. Journal of Sport Psychology, Vol.6, 27-41.

Chelladurai, P., & Carron, A. V. (1983). Athletic maturity and preferred leadership. *Journal of Sport Psychology, 5*, 371-380. Cox, R. H. (1990). *Sport psychology:: Concepts and applications* (2nd ed.). Dubuque, IA: Wm. C. Brown Publishers.

Cox, R. H. (1990). *Sport psychology: Concepts and applications* (2nd ed.). Dubuque, IA: Wm. C. Brown Publishers.

Fiedler, F. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.

Gill, D. L. (2000). *Psychological dynamics of sport and exercise* (2nd ed) Champaign, IL: Human Kinetics.

Horn, T. (2002). Coaching effectiveness in the sport domain. In T. Horn (Ed.), *Advances in sport psychology*, (2nd ed., pp. 309-354). Champaign, IL. Human Kinetics

Martens, R. (1987). *Coachers guide to sport psychology*. Champaign, IL: Human Kineti

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp42-49
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Challenges and Experiences on Inclusive Physical Education: The Case of Bahir Dar Elementary Schools.

Berhanie Asrat Bekele,
Lecturer, Bahir Dar University
berhanie98@gmail.com

Abstract
The intent of this study was to evaluate challenges and experiences of elementary school students with disabilities in inclusive physical education in the case of Bahir Dar Administrative Zone Elementary Schools. Purposive and random sampling techniques were employed. The participants in this study were a total 93. Of these, students from grade 5- 8, who have a physical disability from seven schools (n= 41). Peers were classmates (n=35) , Physical Education Teachers (n=15)and expertise(n=2)from regional and zone education bureaus. Both close and open ended questionnaires, interviews and group discussions were used for data collection. The result showed that there was no uniformity across the schools on the implementation of inclusive physical education. The major identified problems were unavailability of appropriate facilities and equipments, absence of teachers' CPD training on inclusive physical education, the text / teachers guide book not modified or adapted to meet the need of special students, attitudinal barriers. Then based on the findings, possible recommendations were suggested for improvements in implementing inclusive physical education at Bahir Dar Administrative Zone Amhara region and also at the country level.
Keywords: Students with disability, Inclusive Physical Education, Challenges, Experience etc.

BACKGROUND OF THE STUDY

According to Smith, (2003) sport, exercise and physical activity settings may afford opportunities for children with and without disability to interact and develop friendships. Moreover, it can raise the children's self-respect and social skills (Block, M.E 1999).Expected benefits for children of mainstream abilities include a more positive attitude to individuals with disability, a higher level of social skills, readiness to help others and increase self-respect. Teachers working in inclusive classes can also benefit from it: they can gain better insight in to individual differences between students, consult related specialists and increase or broaden their professional competence.

There have been efforts internationally to include children with disabilities in the educational mainstream. Giffard-Lindsay, K. (2007) suggests that 'inclusive education/mainstreaming is the key policy objective for education of children and young people with disabilities'. Inclusive education entails 'increasing the participation of students, and reducing their exclusion from, the cultures, curricula and communities of local schools' (Booth and Ainscow, 1998).

Inadequate infrastructure and insufficiencies in terms of equipment pose a global problem in physical education (Hardman,2008). The issue becomes more striking as we step in to the area of inclusive education. It is observable that, in the federal democratic republic of Ethiopia, many schools lack the prescribed material resources, which is a great challenge for the implementation of good physical education. Most Primary Schools in Amhara Region fail to fulfill the equipment standards for inclusive education teaching. (Asrat,2013)

In Bahir Dar administrative zone elementary schools there are about 277 SWD. Of these 177 SWD are learning from grade one to four by unit cluster separately while 100 of them are from grade five to eight learning in inclusive class rooms. However, these students not uniformly included to inclusive physical education and not benefited by doing physical activities like their class mates.

Even if some researchers tried to conduct a research on inclusive education in general, but according to the researcher's view, challenges about inclusive Physical Education program has not been discovered (studied) deeply in Ethiopia. The latent problems in inclusive physical education need special attention

and should be investigated further. Investigating the perspective of students with disabilities can give great insight in to what factors are important in being a participant during practical sessions. Thus, this research tried to answerer the following research questions:-

What were the factors that hinder the participation of students with disabilities in inclusive physical education?Was physical education class unique for students with disabilities to create friendship and cooperation with their classmates?

What were the perceptions of stakeholders towards the students with disability?

What was the influence of physical education teachers against the students with disability?

Objectives Of The Study

General Objective

The general objective of the study was to investigate challenges and experiences of elementary school students with disabilities in inclusive physical education.

Specific Objectives of the study

The specific objectives were:-

Determine factors that hinder the participation of students with disability in inclusive physical education.

Examine whether physical education class is unique for students with disabilities to create friendship and cooperation with their classmates.

Explore perceptions and experiences of stakeholders towards students with disability.

Examine teachers' influence in physical activity class against students with physical disabilities.

Methods And Materials

The researcher was selecting survey method. The selected research method helps to look what the current experience and challenges on implementing inclusive physical education looks like in selected schools .It helps to conduct in-depth study of instances of phenomenon in real life settings and from the perspective of participants of involved in the phenomenon. Phenomenon is a process, event, person, document or other thing of interest to the researcher.(Gall and etal,2007). This study was conducted on purposively selected 7 elementary schools from Bahir Dar Administrative Zone, in which inclusive education was practiced. Namely; Atse Sertse Dingil, Yekatit 23, Shimbit, Tsehay Gibat, Zenzelma, Tis Abay and Zegie Elmentary Schools.

In selected schools there were students from grade 5- 8, who have a physical disability (n= 41). Of these, 17.1% were from grade five, 34.1% from grade six, 22% from grade seven and 26.8% from grade eight . Their sex composition was 43.9% female and 56.1% male. The categories of their impairments was 2.4% of Cardiac, 31.7% of Hearing, 4.9% of Neurological, 26.8% of Orthopedic and 34.1% of Visual . The educational background of their family was 41.5% literate and 58.5% illiterate.

Peers (SWOD) (n=35), Physical Education Teachers (n=15)and 2 educational expertise were also involved in the study and the total population were 93 participants. To gather valid and reliable data and achieve the objective of the study, the main instruments were questionnaire, qualitative interview and group discussion.

To explore the views about inclusive Physical education, researcher developed three sets of questionnaires which contained both close and open ended items for SWD, SWOD (able peers) and Physical Education Teachers. Qualitative interview was used as data collection tool from education expertise. The advantage of interviewing is that it gives opportunity for following up on answers to dig for deeper information and clarification which can help to avoid misunderstandings (Gall and etal, 2007). Researcher additionally held group discussions with physical education teachers across seven schools. Data gathered from respondents was analyzed both quantitative and qualitatively by using SPSS V-21

Result And Discussion

Importance of the Participation of SWD in Physical Education Practical Class

Doing physical activity has numerous values on the life of children with disabilities. Understanding this, Steve H., (2013) mentioned that, sport and physical activity are important components in a healthy lifestyle for children. Physical activity contributes to developing healthy bones and efficient heart and lung function, and can positively impact on the functioning of the body's immune system. Sport and physical activity contribute highly to the prevention of chronic diseases such as cardiovascular disease, diabetes, hypertension, obesity and osteoporosis.

From the open ended questionnaire, the importance of participation SWD in physical education practical class was assessed and SWD replied that they could get benefits like development of body strength, socialization with peers, equal opportunity to participation with others, happiness and avoidance of sense of inferiority, prevention from disease, having good posture and health,

physical fitness qualities like strength, flexibility, speed power and so on, and efficiency of performing daily activities.

Their able peers also explained that SWD can build their knowledge and body strength, participate on sport races and got national and international recognition and waving the flag of their country in the world champion and be a proud for their citizens if they participate in physical education practical class. They also added that, SWD can best understand as they can perform any activity like their able peers and can also help them to build self-confidence and to be psychologically fit and safe. Moreover, they indicated that, SWD can improve their fitness and social interaction by avoiding sense of inferiority. In supporting this, Steve H., (2013) mentioned the purpose of physical activity. As to him sport and physical activity can increase muscle strength and also improve functional ability, such as range of motion, gross motor skills (eg. walking, jumping, kicking), fine motor skills (eg. hand function – grasping, gripping), balance and coordination (eg. hand-eye coordination). While this is of benefit to all children, children with disabilities (especially physical or intellectual impairments) may be in particular need of developing these skills.

Physical education teachers also listed the advantages of participation of SWD in physical activity practical class including: development of self-confidence, prevention from diseases, increased country love, improved physical condition of disabilities, avoidance of attitudinal problems, increased communication with the community, avoidance of sense of inferiority, participating in different sport competitions, gaining mental satisfaction, and awareness of working equal with their class mates. All respondents agreed on the point that participation in physical education practical class is essential for SWD to be physically fit, mentally alert and socially interactive. Our result is in line with that of James, (2008) who reported that increasing the participation in physical activity among people with disabilities is an important goal for the health and fitness profession. He further explained that despite the enormous health benefits that can be attained from regular physical activity, most people with disabilities are not achieving it hence some countries like the U.S. recommended 30 minutes physical activity per day and five or more days per week.

Interest, Ability to do and Participation Level of SWD on Physical Education Class and Support of Others

The result in Table 1 showed that, the interest of 68.3% of the students with disability towards physical education was high and above while, of 14.6% was moderate and of 17% was low. That is 83% of the students with disability showed high to moderate interest towards physical education.

Table 1. Interest, ability and participation level of SWD

Description	Very high		High		Moderate		Low		Very low	
	No.	%	No.	%	No.	%	No.	%	No.	%
Your interest towards physical education	17	41.5	11	26.8	6	14.6	6	14.6	1	2.4
Your ability to do physical activity	4	9.8	14	34.1	9	22.0	3	7.3	11	26.8
Your interest to participate in physical education practical class	14	34.1	12	29.3	6	14.6	4	9.8	5	12.2
How often you are participating in physical education practical class?	4	9.8	5	12.2	9	22.0	16	39.0	7	17.1

Similarly, 43.9% of the SWD replied that they have high ability to do physical activities whereas 22% have moderate ability and 34.1% have low ability (Table 1). In addition, 63.4% of the respondents replied that they have high interest to participate in physical education practical class, 14.6% have moderate interest and 22 % have low interest (Table 1).

Although 78% of the SWD have interest to participate in the practical class of physical education (Table 1), only 22% were highly and 22% moderately participated while the rest were very rarely and even not participated (Table 1). Likewise, the able peers replied that 20% of the SWD highly participated in physical education practical class, 45.7% sometimes and 34.3% didn't participate and even never get the chance.

Moreover, physical education teachers also replied that, only 20% of the SWD always participated, 60% sometimes and 20% didn't participate in physical education practical class.

However, Active Living Research (2007) stated that schools serve as an excellent venue to provide students with the opportunity for daily physical activity, to teach the importance of regular physical activity for health,

and to build skills that support active lifestyles. Amanda (2012) also points out that becoming physically active in school could result in an individual having a physically active lifestyle into adulthood.

Doing physical activity with peers or classmates helps the students to enhance their motivation, self-esteem, self-confidence and friendship. Especially students with disabilities have interest to play with their able peers and socialize. However, they responded that only 22% of them were having high opportunity to do physical education in and out of the school with their able peers, 43.9% moderate, 14.6% low opportunity and 19.5% never get chance.

The assessment on the interest of able peers (SWOD) spending time in performing physical education with SWD showed that 63.5% of them spend good time, 17.1% spend moderate time and 19.5% spent low time. This means even if some students with disability faced challenges due to lack of interest from their able peers most of them were accepted by their friends. Correspondingly, 65.7% of the able peers replied that they have high to very high interest to do physical exercise with SWD and 25.7% moderate interest while 8.6% have no interest. From the response it could be understood that 91.4% of the able peers have moderate to high interest to do physical exercise with SWD. Hence, the interest of able peers to do physical exercise with the SWD could not a cause to hinder the participation of SWD in physical education. Helena et al., (2009), also mentioned that physical education has potential for encouraging development of friendships between children with and without disabilities. In addition, Amanda (2012), described as unlike the other subjects in school, physical activity classes uniquely help creating friendships and learning to cooperate with classmates.

The social interaction created during sporting can help the SWD get support from their able peers. Hence, SWD responded that they received 83% support from their able peers while 17% received no support. This shows that majority of the SWD have support from their able peers and build social interaction. Likewise, 88.6% of the able peers replied that they have moderate and above support for the SWD in performing physical activities. The result is supported by Sherrill (2004) cited on Amanda (2012) who explained that having friends in physical activity class who support and encourage physical activity is vital to wanting to participate in physical activities, and self- efficacy. In addition, Seymour et al., (2009) also observed that physical education encouraged the interactions and friendships. Different research findings in physical education also reported the positive effects of encouragement and reinforcement from classmates and peers (Goodwin and Watkinson, 2000; Hutzler et al., 2002, cited in Helena et al., 2009). Helena et al., (2009) also described that, recognition of accomplishments, praise, and self-esteem support from friends for the SWD contributed a positive experience in physical education.

In addition, the participation of the SWD in physical activity can be influenced by the support of their family. In relation to this, 39% of the SWD have high and 19.5% moderate support from their family while 41.5% have low/no support. This may be ascribed to the educational background of their family. The illiteracy of the family (low understanding of the importance of participating in physical education) coupled with the culture, might have negatively influenced the participation of their children in physical education. The result is supported by the finding of Hannah et al., (2012) who reported that parents of the children with disabilities (CWD) underestimate the capacities of their children, do not see the value of sending their children to school nor their potential for future employment. Parents were also critical in the development of friendship. Smith, (2003) and Weiss and Stuntz, (2004), also reported that parents of CWD have many additional demands on their time because of their child's disability but are consistently identified as playing an important role in sport socialization.

Moreover, school teachers/special needs education teachers/ are also accountable for their students by initiating and creating interest, showing future directions and guiding their life in the right way. In response to the support they received from their physical education teachers, 58.6% of the SWD replied that they received high support from their physical education teachers, 22% moderate support and 19.5% received low support. Similarly, 57.2% of able peers replied that the support of physical education teachers for SWD was high and above, 22.9% moderate and 20% low. In general, according to the able peers, about 80.1% of the SWD get moderate to high support from their physical education teachers.

In support of the result, Saskatchewan Learning Special Education Unit, (2001) stated that, the classroom teacher has tremendous influence on their students at the grass root level and is the primary role model for the students. Without the cooperation of the classroom teacher, effective inclusion will not take place.

Major Factors Hindering Participation of SWD

Even though the interest of the SWD to participate in physical education practical class was high, the level of participation was inversely related. The reasons for the low participation in the physical education practical class were due to lack of comfortable school sport fields/facilities, equipment, lack of interest from their teachers to participate them, the level of difficulty they have and lack of willingness by their peers to do the physical activities with and lack of support from the family, lack of interest from their physical education teachers to participate them in practical class and in some case even in physical education class.

Table 2. The fulfillment and comfort of school sport facilities and equipment

Description	Very good		Good		Moderate		Low		Very low	
	N	%	N	%	N	%	N	%	N	%
The comfort of school sport facilities for SWD	4	9.8	16	39.0	8	19.5	8	19.5	5	12.2
The fulfillment of school sport equipment for SWD	6	14.6	6	14.6	3	7.3	10	24.4	16	39.0

The comfort of school fields for sporting and/or the fulfillment of the necessary facilities is very important to conduct practical classes of physical education safely and prevent SWD from any injury. Hence, 48.8% of the SWD replied that the field was comfortable for sporting and 19.5% replied moderately comfortable. However, 32% of the respondents replied that the field was not comfortable and too terrible for sporting (Table 2). In line with this, 34.3% of the able peers replied that the sport fields/facilities are comfortable, 14.3% replied moderately comfortable and the rest 51.5% replied not comfortable/too much terrible for the SWD. In addition, 20% of the physical education teachers replied that the sport field/facilities were highly comfortable or low factor , 20% moderate factor and 60% were replied as it is a great factor or highly uncomfortable for SWD. In general, majority of the respondents agreed that the school fields/facilities were highly to moderately uncomfortable for SWD. Additionally researchers observed that, majority of the schools have only football court to teach all skills and its comfort is relative but not absolutely comfortable for all types and levels of difficulty students have.

Like sport facilities, sport equipment are also very essential to implement a designed physical education curriculum and achieve its goals, and plays a pivotal role. Especially, the participation of students with disability depends up on the availability of adapted and comfortable sport equipment. Of the total, 29.2% of the SWD replied that the availability of sport equipment was good and above and 7.3% moderate. But 63.5% of them responded that the equipment are not enough and even not available at all (Table 2). Similarly, 11.4% of the able peers replied that the sport equipment comfortable and 14.3% moderately comfortable while 74.3% replied that the equipment are not comfortable for the SWD. Like to the students, 100% of the physical education teachers replied that sport equipment are highly uncomfortable and not available for the SWD and considered it as a number one barrier that hinders participation of the SWD.In addition to the inclusive education policy and system, the commitment, attitude, knowledge and skill level of physical education teachers could play vital role in the learning of students with disability in inclusive class rooms. In this regard, 34.1% of the SWD replied that their physical education teachers were always ready and planned to implement inclusion, 24.4% replied that their teachers were sometimes ready, 29.3% replied no special preparation, 4.9% replied that they treated them alone, and 7.3% replied that their teachers didn't give them opportunity to attend the practical class. From the result it is clearly visible that in most schools, physical education teachers didn't always plan and conduct inclusive class, but to the contrary exclusion, separation, and segregation of the students with disability were practiced. The group discussion members also explained that only in a few schools, physical education teachers implemented inclusion and most of them didn't even design activities which are adapted or modified type by considering the level of difficulty of the SWD have. The group also underlined that especially the students with visual impairments were totally excluded not only from the practical class but also from taking physical education course as a whole.

Planning, Organizing, managing and implementation of inclusive physical education needs the dedication of physical education teachers. Respondents rated the readiness of their physical education teachers depending on their day today observations.

Of the obtained results, 40% of the able peers replied that their physical education teachers always implement inclusive physical education, 14.3% sometimes and 2.9% treat them separately while 42.8% replied no extra preparation and even exclude the SWD from the practical class.

However, Pijl (2005) cited in Amanda, (2012) indicated the negative consequence of exclusion of the SWD from physical activities. He stated that, social isolation of children with disabilities have a detrimental effect on their social-emotional development, which results in low self-esteem and confidence, fear of failure and school attendance, lack of motivation, low test scores as well as deviant behaviors and dropping out of school.On the assessment of the applicability of inclusiop in the schools covered by this study, 13.3% of the physical education teachers replied that inclusion was implemented in all subjects, the other 13.3% in many subjects, 53.3% in some subjects and 20% replied totally not implemented. According to Hannah et al., (2012), inclusive education is a process for increasing participation and reducing exclusion, in a way that effectively responds to the diverse needs of all learners. They further explained that inclusive education is an approach which values diversity as an essential part of the teaching and learning process which promotes human development. That is inclusive education aims to combat the marginalization of individuals and to promote difference and should be developed as part of a national strategy and not defined as a separate approach.

The knowledge of inclusion is mandatory for teachers for the proper implementation and realization of inclusive physical education programs. If teachers lack knowledge and skill their attitude also influenced and depends up on their ability. Thus, 60% of the physical education teachers replied that have high knowledge on inclusion and 40% have moderate knowledge about inclusion. But their response contradicts with the reality on their current practices as indicated on Table 5. In addition SWD (65.9%) and able peers (60%) replied the readiness of their physical education teachers to implement inclusion as it is sometimes, separate and even exclusive.

Table 3. Participation of SWD (by physical education teachers)

Description	Always		Sometimes		Not at all	
	N	%	N	%	N	%
Are SWD participating on your physical education practical class?	3	20.0	9	60.0	3	20.0
Do you prepare inclusive lesson plan and adapt activity to include SWD on practical class?	4	26.7	6	40.0	5	33.3

Physical education teachers were also asked about the modification or adaptation of activities they made during the practical class. However, only 26.7% replied that they were adapting activities on their daily lesson plan and 40% made it sometimes while 33.3% didn't totally make any activity adaptation to make their lessons inclusive for SWD (Table 3). The observation of the researchers and the group discussions held with physical education teachers indicates that the inconsistency and lack of uniformity on participation of SWD and even exclusion from physical education classes. In agreement to this result, Asrat (2013), also reported that, though they are autonomous, teachers were not used to adapt and modify the standardized curriculum based on the needs and ability of students with learning barriers for the realization of best inclusive practice.

In addition to the barriers discussed above, the physical education teachers included other barriers hindering the participation of SWD in the practical physical education class. The barriers they mentioned were, knowledge gap of SWD about the relevance of physical activity, difficulty of activity selection and adaptation, lack of skill training for the teachers, low interest of the able peers to do with, difficulty of communication/ for hearing impairment/, difficulty of identifying the level disability, lack of skill to adapt activities, Attitude of the parents of SWD towards practical class, difficulty of class room organization and class room management, shortage of allotted period and lack of teaching aids are influential factors which affect the implementation of inclusive physical education

Possible Indicators for Active Participation of SWD

Students with disabilities and their able peers suggested that, the physical education teachers should design proper activities on their daily plan and give ample time to practical activities for SWD. The concerned bodies (Education Bureaus) should make the sport facilities/fields as well as equipment available and comfortable by considering SWD and provide them sport wear to encourage and make them active participants. They also underlined that the SWD should be given equal opportunities like others so that they could develop interest to do physical activity. Moreover, physical education teachers should design exercise by considering their ability and demonstrate carefully. To improve the communication barriers for the students with hearing impairment, the students and teachers should learn sign language. They also suggested that

priority should be given for the fulfillments of comfortable sport facilities and equipment followed by peers and teachers encouragements, activity selection and adaptation. Inclusion should also be taken serious issue to be considered while taking the corrective measures.
Physical education teachers forward their suggestion on the modification of physical education text books and teachers guides (type of activity to be adapted or modified from the physical education contents) to make the subject more inclusive and enhance the participation of SWD.
The researcher assessed what is being done about the inclusion of students with disability in physical education practical class at the Regional and zonal questioning the respective experts. Especially in fulfilling the necessary facilities and equipment including improvement of the sport text books in a way that it includes the aforementioned students. The researcher learned that the responsible body didn't give special attention for implementation and realization of inclusive physical education by text book and teachers guide revision in collaboration with the ministry of Education. Trainings were not part of their yearly plan to upgrade teachers in inclusive physical education. There were no detail supervision and directions about the participation of students with visual impairment in physical education practical sessions.
As all participants mentioned, the availability of facilities and equipment were a great challenge and need focus of the higher officials. However, the regional and zonal experts explained that there is no special movement in finding fund from different sources to achieve the intended outcomes.

Conclusion

The main purpose of the study was to investigate challenges and experiences of elementary school students with disabilities in inclusive Physical Education. Through different data gathering tools, the researcher tried to identify the current experiences and challenges of implementing inclusive physical education from selected seven elementary schools which are located in Bahir Dar Administrative Zone. As the results of the findings indicate, across these seven elementary schools there is no uniformity in achieving the objectives of Physical education and making the subject inclusive in line with that of the philosophy of inclusion.
Their current experience showed that; only in some schools inclusion is implemented partially in physical education. Due to this students with hearing impairments/disabilities are taking a part with other students with the support of their physical education teachers and sign language /special need experts .But students with visual impairments do not take the practical part of the course as a whole in all schools.
The prevailing challenges are students with visual impairment relate their participation of taking physical education lesson with that of their grades or mark and due to this they totally excluded themselves from taking the course. The students' text and teachers' guide books were not modified or adapted to meet the need of SWD. In most schools teaching facilities and equipment are not comfortable for SWD to participate on physical education practical classes.
The knowledge and skill level of physical education teachers to conduct the subject efficiently is limited. The concerned bodies attention is not that much satisfactory for proper realization of inclusive physical education.

Recommendations

From the findings the following recommendations were suggested.
Sport Equipment and facilities would be fulfilled to create conducive ground for the SWD. To this end, collaboration of NGOs and GOs is crucial. In addition, the regional and zonal bureaus of education should collaborate with Technical and Vocational Schools to produce modified equipment locally.
All elementary school physical education syllabuses, teacher's guides and text books have to be modified by considering the philosophy of inclusion and show ways of adapting different physical activities to meet the need of various types and levels of difficulties of the SWD.
Physical Education Teachers would get CPD training in the area of inclusive physical education continuously.
Inclusive physical education and/or adapted physical education would be part of college level physical education and sport / sport science program curriculum so that new graduates can develop knowledge, skill and attitude.
Attitudinal barriers have to be improved through continuous awareness creation strategies for students, parents and other stakeholders.
The Regional Bureau of Education would follow and supervise the implementation of inclusive physical education like other subjects at schools.

References

Amanda Johanna (2012). An Elementary School Student with a Physical Disability Participating in Physical Activity Class. A Qualitative Study of his perceptions and experiences.

Asrat Dagnew (2013). Factors Affecting the Implementation of Inclusive Education in Primary Schools of Bahir Dar Town Administration. Bahir Dar University

Block, M.E. (1999). Did we jump on the wrong bandwagon? Problems with inclusion in Physical Education.

Booth, Tony & Ainscow, Mel (eds.) (1998) From Them to Us - An international study of inclusive education. London, Routledge

Gall M.D., Gall J.P., and Borg B.R. (2007). *Educational Research: An Introduction (8th ed.)*. Upper Saddle River, US: Pearson Education, Inc.

Giffard-Lindsay, K. (2007) Inclusive Education in India: Interpretation, Implementation and Issues. Sussex:The Consortium for Educational Access, Transitions and Equity (CREATE) Available Online at http://www.create-rpc.org/pdf_documents/PTA15.pdf

Hannah Corps, Gilles Ceralli and Sandra Boisseau (2012). Inclusive Education .Technical Resources Division Policy Paper

Hardman, K. (2008). Physical Education in Schools: A global perspective. *Kinesiology, 40(1, 5-28*

Helena Seymour, Greg Reid, and Gordon A. Bloom (2009). Friendship in Inclusive Physical Education. Adapted Physical Activity Quarterly,2009, 26, 201-219 © 2009 Human Kinetics, Inc. http://activelivingresearch.org/conference/2007

James H. R., (2008.) Promoting Inclusive Physical Activity Communities for People with Disabilities. *Research Digest.* President's Council on Physical Fitness and Sports. Series 9, No. 2

Saskatchewan Learning Education Unit (2001). Creating Opportunities for Students with Intellectual or Multiple Disabilities

Seymour, H., Reid, G. and Bloom, G. A. (2009). Friendship in Inclusive Physical Education. Adapted Physical Activity Quarterly, 26(3)201-220.

Smith, A.L. (2003). Peer relationships in physical activity contexts: A road less traveled in youth sport and exercise psychology research. Psychology of Sport and Exercise,

Steve Harknett (2013).Sport and play for all. A manual on including children and youth with disabilities. Sports For All, Handicap International Sri Lanka

Weiss, M.R., & Stuntz, C.P. (2004). A little friendly competition: Peer relationships and psychosocial development in youth sport and physical activity contexts. In M.R. Weiss (Ed.), Developmental sport and exercise psychology: Morgantown, WV: Fitness Information Technology.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp50-52
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

A Comparative Study Of Aggressive Behaviour Among Wrestlers In Yoga

MR GANGADHAR .T
(Research scholar, SVN University MP)
Asst. Professor in Physical Education
Smt. KoteBoramma First Grade College , Challakere

Abstract:
An individual to be successful in life or have a peaceful life he has to adopt physical activities, exercises, yoga and meditation in his daily life and a person who doesn't adopt any physical exercises, yoga and meditation his life will be equal to that of hell.In sports and games it is necessary and very important for the sportsmen to be aggressive. Aggressiveness is necessary for some of the sports and not much necessary for some sports. Aggressiveness is must and should for a sportsman to win the game. Yoga and meditation are important and necessary for good health. Wrestlers are given physical fitness training with aggressive behavior before entering into akhada.
Davangere University Inter college wrestlers have been taken for T-test. Forty students of weight category 55kg to 60 kg have been taken and for them yoga and meditation training given and a is made to find aggressive behavior and capacity. To find out the aggressive behavior of wrestlers, six weeks yoga and meditation training have been given to them. We have divided 40 students into two groups and made a pre-test of aggressive behavior. Then one group of 20 wrestlershad been given the training of some yogaasanas and meditation for six weeks. After training, pre-test and post-test made in aggressive behavior. Wrestlers aggressiveness before and after training of yoga and meditation have been tested by the way of comparative statistical T-test.

Introduction :
Good health is the barometer of a person's wellbeing. It comes from the inner balance of the body, mind, and spirit. Regular physical exercises have been characterized as appositive health behavior having psychological benefits.In 6th century B.C. Parsees used to do various types of physical activities. Greeks, Romans, Spartans and Athens all gave prominence to physical fitness and activities in their lives and transformed into physical education. All over the world physical education have been a part of general education as a coin has two faces. In Vedas, especially in Rig Veda there were descriptions of 64 arts and in those arts wrestling (kusti) forms one of the art. In Ramayana and Mahabharata epics there were descriptions of Mallayudha, Drushtiyuddha, Dhanurvidya (archery), Mushtiyuddha (boxing), JalaYuddha (water fight). In Aadipuranas too there were descriptions about Bharata and Bahubali fights. In western country epics like the Iliad and Odyssey there were descriptions about Mushtikalaga, Jattikalaga, (kalaga fight), BhimaJarasandha, Vali-Sugreeva, Krishna –Banugaramallayudha fight and described about wrestling also.
In wrestling aggressive behavior is essential for a wrestler. When wrestlers are given training, they are given exercises that are related to the motor components to enhance their skills and capacity.
To enhance their performance they are given training as following:
Abdominal workout,Strength training,Cardiovascular workout,Speed and conditioning training
By this training plan method, it increases their aggressive behavior.

The practice of yoga is an art and science dedicated to creating union between body, mind, and spirit. Its objective is to assist the practitioner in using the breath and body to foster an awareness of ourselves an individualized beings intimately connected to the unified whole of creation. The yoga sutra of Patanjali, approximately 200 A.D. this sacred text describe the inner workings of the mind and provides an eight step blue print for controlling its restlessness so as to enjoying lasting peace

In brief the eight limbs or steps to yoga are as follows:

Yama: Universal morality Niyama: Personal observances

Asanas: Body posturesPranayama: Breathing exercises, and control of prana

Pratyahara: Control of the sensesDharana: Concentrating and cultivating inner perceptual awareness

Dhyana: Devotion, meditation on the divineSamadhi: Union with the divine

Wrestlers were given yoga training camp for six weeks and the prominent yoga asanas are as follows:

Surya namaskara

i. Namaskara sthiti ii. Padahasthahasana iii. Ashwamedha asana iv. Samakona asana v. Shashanka asana vi. Ashtanga namaskara vii. Bhujanga asana viii. Parvatha asana ix. Shashanka asana x. Ashwamedhchakrasana xi. Padmahastha asana xii Ardhachakra asana Namaskara asana,Supthaveera asana,Trikona asana

Vajra asana,Makara asana.,PrashvottasanaHala asanaKarna panda asana

All these asanas are helpful for the wrestling skills. By doing these asanas wrestlers can develop their health very well that is, brain development (memory power), body flexibility, self confidence improvement.

At the time of tournament wrestlers are given training involved motor components because to enhance aggressiveness but they should not adopt yoga asanas because they lose their aggressive behavior. At the time of tournaments they should be given training relating to motor components. They should not do yoga and meditation because their aggressive level will be decreased.

With my observation, yoga and meditation training can warm down the body. Yoga and meditation should not be adopted at the time of tournaments as it decreases the aggressiveness of wrestlers, yoga and meditation can be adopted after tournaments as it warms down the body.

HYPOTHESIS:

In wrestling, to win the game aggressive behavior is important. When wrestlers are given yoga training, their aggressive behavior shall be decreased. If their aggressiveness decreases they shall lose the game. That's why wrestlers should be given motor component exercise by that their aggressiveness shall be increased and their performance too increases. After tournament completion wrestlers can adopt yoga and meditation for body warm down.

Methodology:

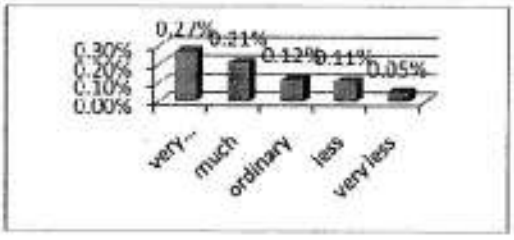
We have a comparative study of aggressive behavior among wrestlers in yoga. Davangere University Inter college wrestlers of weight category 55kg to 60kg taken for test. For them, yoga and meditation training given for a period of six weeks and a test is made to find their aggressive behavior and capacity.

Sports Aggression inventory by Kumar –psychology test

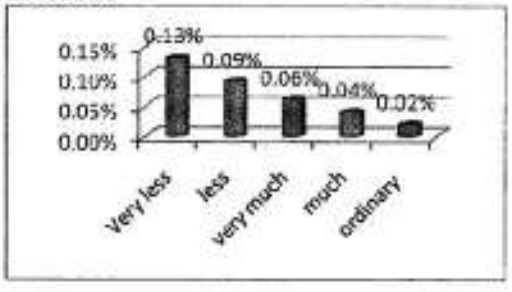
In this questionnaire 25 items are applied in the aggressive behavior test. It has been applied in statistical t-test.

We have 40 wrestlers in our test. We have made a pre-test of aggressive behavior before yoga training for those wrestlers and their aggressiveness resulted in 3.80. In total 40 students for 20 students we have given six weeks yoga training. After yoga training a post-test was made in aggressive behavior which resulted in 3.42In wrestlers totally aggressive behavior is 76% and when wrestlers involved in yoga their aggressive behavior is decreased to 34%. We have represented in the form of graph that follows

Classification of the aggressive behaviour – Pre Test for wrestling players represented by Graph



Classification of the aggressive behaviour – Post Test of wrestlers after Yuga training represented by Graph as follows



Conclusion:

Wrestlers have aggressive behavior more and after yoga training their aggressive behavior is decreased.

Wrestlers to enhance their aggressive behavior they involve in motor components exercise according to plan.Yoga and meditation is needed for wrestlers when there is no tournament for them to relax themselves when there is a tournament they shouldn't adopt Yoga and meditation.Wrestlers when they enter in akhada there are some asanas that are related to wrestling skills in yoga.Wrestler's aggressive behavior is 76% and after yoga training their aggressive behavior is 34% by statistical test.

We have taken questionnaire of aggressive behavior.

Reference:

M C Graw –Hill- Newyork 1963. Consolzaio F Johnson R Pecore L:Physiological measurement of metabolic functions (HARWORD STEP TEST)

H.Sime Wisely E- American psychologist vol -36 (4) 1981 373-389

Peter Hassmen, nathlikoivula, anttiuutelaPh.d

Dr. Dian crore university of Gloucestershire UK

DrM.S.Pasodi Test and Measurement in evaluation Gulbarga University

De A K Das Gupta P k panda, BK and Bhattcharya

Sport Aggression Inventory by Kumar

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp53-57
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Psychological characteristics of 2016 Olympic champion shooter: a case study investigation of Vietnamese athlete

Vu Viet Bao[1], Pham Thi Hien[2], Le Nguyet Nga[1],Le Quy Phuong[1]
[1]Sport Science and Technology Institute, Hochiminh City University of Sport, Vietnam
[2]Sport Managment Faculty, Hochiminh City University of Sport, Vietnam
Email: vuvietbao@gmail.com

Abstract
The purpose of the this study was to investigate psychological characteristics of the Vietnamese shooter who won gold medal in Olympic Rio 2016. The subject is a champion in 10m air pistol (60 shots) men. The athlete wasrequired to fill out the questionairsat the starting new circle training after returning from Rio 2016: short form Revised Eysenck Personality Questionnaire (EPQR-S; Eysenck, Eysenck, & Barrett, 1985).The athlete was also investigated the Visual reaction time (single red light and multiple choice with red, blue and yellow light). The athlete was requried to investigate the vibration of hand which is very important in shooting and testing the sense of muscle force by using hand grips.The results show that his personality is stable introverts (phlegmatic qualities such as calm, even-tempered, reliable, controlled, peaceful, thoughtful, careful, passive). The athlete was also tested the refaxion with red light 10 times andmultiple choice with red, blue and yellow light in 10 times. The results indicate that his reactionwas very good (0.178±0.025s in red light and 0.477±0.076sin multiple choice). Subject completed testing the vibration of hand with 9 levels from 10mm to 2.5mm diameter of ring perfectly. The result demonstrates that the vibration have been controlled well. For testing the sense of muscle force, athlete was required showing 50% maximal strength with arm grip 5 times. Totally the difference between arm grip record in 5 times and the value of 50% maximal strength were calculated. The oscillation result was from 0.15 to 0.95 kg with the avarage value was 0.59. It was indicated that sense of muscle force is very good sensitive and good controlled. In addition, theresults demonstrated thatVitenamese elite shooter personality is stable introverts.Training hard with the stress of focus and static strength have positive effects to shooting athletein brain control, visual reaction time, vibration.
Keywords: shooting, athlete, shooter, psychological characteristics

Introduction
Shooting is a unique sport because it does not require exceptional strength, size, athletic or natural ability to become a champion.Competitive sports and performance sports is only success base on the trainning hard and the scientific work up of specific physical and psychological as well as technical and didactic elements required for performance. Shooting is a special sport, it took longer than in other sports for psychologists and sport scientists to discover and work together with experienced coaches to analyze and synthezie many factors of the shooting process into a system of study or research.In the high-performance sport of shooting, it is not, as often assumed by laymen, the dreadful trembling which causes poor results. An emotional erruption, which affects the ability to concentrate and observe, which brings about a change in the muscular tension such as hypotonia or hypotension or which, more importantly, causes a discrepancy in the tonicity of the agonistic and antagonistic functions of the muscles, plays a major role here.Mental control is a key factor in developing a champion shooter. It is important during both the mechanical and mental phases of development. Shooters must be able to think for themselves, analyze fully the techniques involved, weigh all courses of action and make the right decisions concerning development and training during the mechanical learning phase. In the mental learning phase they must train to exercise complete control over mind and body to cope with match pressure in order to produce the results necessary to become a champion.

Thus, investigate the psychological characterisitcs is very importance, especially discover in elite athlete as olympic champion.The purpose of the this study was to investigate psychological characteristics of the Vietnamese shooter who won gold medal in Olympic Rio 2016. This is a unique research in Vietnamese elite shooter published.

Methodologies

Subject:

The participant was a 42years old male air-pistol shooter. He was a member of the Vietnam national team and had participated in numerous major international events, including the ASIAN Games and World Championships, the World Cup Championships, and he was the champion of the 2016Rio Olympic Games in 10m air pistol (60 shots). Subject signed an informed consent form reviewed by the Scientificcommittee at Hochiminh City University of Sport, which included a description of the testing proceduresand following the Helsinki declareration.

Methods:

The athlete was required to fill out the questionairs at the starting new circle training after returning from Rio 2016: short form Revised Eysenck Personality Questionnaire (EPQR-S; Eysenck, Eysenck, & Barrett, 1985).

The athlete was also investigated the Visual reaction time. Subjecthave done 10 times of each test(single and multiple choice) and the average of 10 times testing was a record. The red light was applied in single visual reaction test and red, blue and yellow were applied in multiple choice test. The equipment was used in this investigate is Taikei Whole Body Reaction time from Japan.

The athlete was examed the propriorception by using sense of muscle force test. The arm grip from Taikei Japan was used for testing. Athlete was required showing 50% maximal strength with arm grip 5 times. Totally the difference between arm grip record in 5 times and the value of 50% maximal strength were calculated.The vibration was measured by tremor equipment with 9 rings from 10mm to 2.5mm diameter.The athlete have to pass one by one from low to high levels and the performnace was recorded at the level completed.

Results And Discussion

Personality traits

The EPQR-S measures the personality traits, usually called temperament, in 4 scales, P-Psychoticism or Tough- Mindedness, E-Extraversion, N-Neuroticism or Emotionality and L-Lie.'N' scale: neuroticism or emotionality, is sometimes called the Neurotic scale. Those scoring high on the N scale are characterised by instability, nervousness and general anxiety. 'E' scale: extroversion-introversion. Those scoring high on the E scale are characterised by extroversion, good mixer, sociability, impulsiveness, a tendancy to became aggressive. 'P' scale: psychoticism or tough-mindedness, or psychotic scale is generally considered a measurement of hostility. 'L' scale: lie scales are constructed from items listing issues and behaviours which are either socially desirable but infrequently practised or frequently practised but socially undesirable.

The Short Form consists of 57 items. This form has the same scales as the standard EPQ-R and, with fewer items per scale, allows for rapid administration. The Shooter answered this questionnair in 25 mins, the result show that he was in Introversion. It is the state of being predominantly interested in one's own mental self. Introverts are typically perceived as more reserved or reflective. Some popular psychologists have characterized introverts as people whose energy tends to expand through reflection and dwindle during interaction (Helgoe& Laurie, 2008) This is similar to Jung's view, although he focused on mental energy rather than physical energy. Few modern conceptions make this distinction.

Introverts often take pleasure in solitary activities such as reading, writing, using computers, hiking and fishing. The archetypal artist, writer, sculptor, engineer, composer and inventor are all highly introverted. An introvert is likely to enjoy time spent alone and find less reward in time spent with large groups of people, though they may enjoy interactions with close friends. Trust is usually an issue of significance: a virtue of utmost importance to introverts is choosing a worthy companion.

They prefer to concentrate on a single activity at a time and like to observe situations before they participate, especially observed in developing children and adolescents. They are more analytical before speaking (Laney& Marti Olsen,

2002)Introverts are easily overwhelmed by too much stimulation from social gatherings and engagement, introversion having even been defined by some in terms of a preference for a quiet, more minimally stimulating external environment (Cain, Susan& Quiet, 2012)

Visual reaction time (RT)

Reaction time is one of the important factors that lead to success in sporting competitions, when regularly trained (Bompa, 1994). Exercise is one of the factors that can influence RT because with certain amount of exercises, reduction in reaction time as well as the improvement in speed can be achieved (Van Biesen, 2010).RT needs to be improved in order to develop athletes' ability to respond quickly to different stimulis that are present throughout a sport. According to Mouelhi, et al. (2006), elite athletes who do regular exercises have higher arousal level which helps them to be sensitive to external stimuli, leading to a short RT effects. Results show that shooter was very good in single visual RT with 0.178±0.025s and 0.477±0.076s in multiple choice when compare to archery, shooting and fencing athletes (Chong*et al*, 2016) and none athlete 0.24±0.18s (Aditya Jain*et al*, 2015) Both archery and shooting can be categorised as a static type of sports as it require athletes to stand in a static position and work on the eyes and hand movements. It requires athletes to have an accurate and good vision to aim for the target and accomplish the mission. These types of sport also require the reaction time skill to be used. RT for archery and shooting is important because it will be applied when the athletes focused on their target. In the process, motor reaction of the athletes is linked to the attentional focus.

The findings of our study indicate that elite shooter have faster RT than healthy person. These findings confirm the effect of physical activity and doing sports on improving reaction which is supported by literature review done in this regard. Welford(1980) found that physically fit subjects had faster RTs. Nougier *et al.*(1989) suggest that athletes have better RT as compared to control subjects. Kaur *et al.*(2006) found that athletes performed better than controls for auditory as well as VRT tasks. Nakamoto and Mori (2008) found that college students who played basketball and baseball had faster RTs than sedentary students. Ghuntla *et al.*(2012) showed that basketball players show faster RT than healthy controls. There are several possible explanations for this. Spirdus*oet al*(1975) proposed that less RT of athletes as compared to nonathletes was attributed to faster central nervous system processing times producing faster muscular movements in athletes. According to Gavkare *et al.*(2013) shorter RT in athletes could be due to improved concentration and alertness, better muscular coordination, improved performance in the speed and accuracy task. Also, motor response execution is a physical task, so it is logical that people trained in physically reactive sports may have superior motor response ability (Welford, 1968). It is also thought that individuals who exercise at moderate to intense levels have higher rates of cerebral blood flow. This increased amount of blood flow in the brain results in improvements in cognitive functioning due to increased supply of necessary nutrients, such as oxygen and glucose.(Etnier*et al*, 1997), (Tomporowski *et al*,1986)

Assessing proprioception

To control movement and muscle force, the brain and neuromuscular has to integrate proprioceptive information from a variety of mechanoreceptors. The role of proprioception in daily activities, exercise, and sports has been extensively investigated.Proprioception is essential to motor control and joint stability during daily activities and sports practice (Riemann, 2002) Thus, *proprioception* can be defined as the ability to recognize and to locate the body in relation to its position and orientation in space (Simon, 2008), (Salles, 2011).The athlete was examed the brain control by using sense of muscle force test. The arm grip from Taikei Japan was used for testing. Athlete was required showing 50% maximal strength with right arm grip 5 times. Totally the difference between arm grip record in 5 times and the value of 50% maximal strength were calculated. The results of elite shooter was from 0.15 to 0.95 kg with the avarage value was 0.59. It was indicated that sense of muscle force is very good sensitive and good controlled

Strength-training exercises are used to increase muscular development and improve neuromuscular control (Riemann & Lephart, 2002). However, an ideal exercise program should improve not only neuromuscular abilities but also proprioception. In addition, strength training has been reported to improve proprioception.Our finding supports the current clinical practice of strength training to address proprioception deficits in shooting technique.

To stabilize the shoulder, the key to keep shooting hand stability, muscles must create a compressive force in the joint, centering the humeral head in the glenoid cavity and maintaining the large amount of mobility required by the shoulder (Pleger, 1991). Then it is necessary for neuromuscular control to activate the muscles in preparation for and in response to joint movement (Pleger*et al*, 2003).

Vibration measurement

The ability to stabilize the gun is crucial for performance in Olympic pistol shooting and is thought to be related to the shooters muscular strength. The present study examines the relation between performance and finger flexor force as well as shoulder abduction isometric force in senior male air pistol shooting. Olympic shooting is a high precision sport, where high level performance requires maximum control of all body movements. In air pistol the highest score refers to a very small area (diameter 11.5mm ± 0.1mm), compared to the long shooting distance of 10 m (Rfedeto, 2012) Nevertheless, elite pistol shooters are able to achieve scores as high as 594/600 (world record in males, 600 points being the maximum score), which is equivalent to a shooting accuracy of 99% .Many are the factors that can influence performance in Olympic pistol shooting. A factor widely accepted to affect the movements of the gun and consequently performance is the shooter's static balance (Gulbinskienė, 2009). While many are the factors that affect performance in Olympic shooting, the majority of the studies agree that the ability to stabilize the gun is crucial (Gulbinskienė, 2009). Certain movements of the gun, strongly related to the kinetics of the body (Pellegrini & Schena, 2005) are associated to the muscular abilities of the wrist and the shoulder (Pellegrini & Schena, 2005), (Tang *et al*, 2008).The vibration was measured by tremor equipment with 9 rings from 10mm to 2.5mm diameter. The athlete have to pass one by one from low to high levels and the performnace was recorded at the last level completely. The result of Vietnamese shooter was passed the highest level with 2.5mm diameter. He completed the whole 9 levels easily. It is demonstrated that he can control his hand tremor very well. In agreement with existing books and journals specialized in Olympic shooting the findings of the present study suggest that specific strength exercises (Mon, 2009) are necessary to improve performance. We therefore suggest that training programs for hand grip strength should be necessary in pistol shooting in order to control the vibration.

Conclusion

In addition, the results demonstrated that Vietnamese elite shooter personality is stable introverts.Training hard with the stress of focus and static strength have positive effects to shooting athlete in brainand neuromuscular control, visual reaction time and vibration.

Acknowledgments

The authors would like to thank the Hochiminh City University of Sport, Ministry of Culture, Sport and Tourism for funding the research. This articleisa part of research program.

References

Aditya Jain, Ramta Bansal,Avnish Kumar, and KD Singh (2015). A comparative study of visual and auditory reaction times on the basis of gender and physical activity levels of medical first year students. *Int J Appl Basic Med Res.* May-Aug; 5(2): 124–127.

Cain, Susan, Quiet: The Power of Introverts in a World That Can't Stop Talking, Crown Publishing 2012: quoted by Szalavitz, Maia, "'Mind Reading': Q&A with Susan Cain on the Power of Introverts" (WebCite archive), *Time* Healthland, January 27, 2012; and Cook, Gareth, "The Power of Introverts: A Manifesto for Quiet Brilliance" (WebCite archive), *Scientific American*, January 24, 2012.

Chong (2016). Effectiveness of an alternate hand wall toss on reaction time among archery, shooting & fencing athletes.

Daniel Mon, Maria S. Zakynthinaki, Carlos A. Cordente, Antonio J. Monroy Antón,* Bárbara Rodríguez Rodríguez, and David López Jiménez. (2015).Finger Flexor Force Influences Performance in Senior Male Air Pistol Olympic Shooting. *PLoS One.*; 10(6):

Dev Laney, Marti Olsen (2002). The Introvert Advantage: How to Thrive in an Extrovert World, Workman Publishing. ISBN 0-7611-2369-5.

Etnier JL, Walter S, Landers DM, Petruzzelo SJ, Han M, Nowell P. (1997). The influence of physical fitness and exercise upon cognitive functioning: A meta-analysis. *J Sport Exerc Psychol.* ;19:249–77.

Eysenck, Eysenck, & Barrett (1985).A revised version of the psychoticism scale. Person. individ. Difl Vol. 6. No. 1. pp. 21-29, 1985

Gavkare AM, Nanaware NL, Surdi AD (2013). Auditory reaction time, visual reaction time and whole body reaction time in athletes. *Ind Med Gaz.* ;6:214–9.

Ghuntla TP, Mehta HB, Gokhale PA, Shah CJ. (2012). A comparative study of visual reaction time in basketball players and healthy controls. *Natl J Integr Res Med*; 3:49.
Helgoe, Laurie (2008). "Introvert Power: Why Your Inner Life is Your Hidden Strength". Naperville, Illinois: Sourcebooks, Inc.
Introversion (1998) *Gale Encyclopedia of Childhood & Adolescence*. Gale Research.
Kaur P, Paul M, Sandhu JS.(2002). Auditory and visual reaction time in athletes, healthy controls, and patients of type I diabetes mellitus: A comparative study. *Int J Diabetes*.
Mouelhi, G.S., Bouzaouach, I., Tenenbaum, G., Ben, K.A., Feki, Y. & Bouaziz, M. (2006). Simple and Choice Reaction Times Under Varying Levels of Physical Load in High Skilled Fencers. *Journal Sports Medicine Physical Fitness* 46 : 344-51.
Nakamoto H, Mori S. (2008). Sport-specific decision-making in a Go/NoGo reaction task: Difference among nonathletes and baseball and basketball players. *Percept Mot Skills*.;106:163–70.
Nougier V, Ripoll H, Stein JF (1989). Orienting of attention with highly skilled athletes. *Int J Sport Psychol*;20:205–23.
Pellegrini B, Schena F (2005) Characterization of arm-gun movement during air pistol aiming phase. *J Sports Med Phys Fitness* 45(4): 467–475
Pleger B, Schwenkreis P, DinseH.R., RagertP., Höffken O., MalinJ.P..(2003), Pharmacological suppression of plastic changes in human primary somatosensory cortex after motor learning. *Exp Brain Res*, 148. pp. 525–532
Riemann B, Lephart SM. The sensorimotor system, part I: the physiologic basis of functional joint stability. *J Athl Train*. 2002;37(1):71–79.
Riemann B, Lephart SM. The sensorimotor system, part II: the role of proprioception in motor control and functional joint stability. *J Athl Train*. 2002;37(1):80–84
Salles JI, Alves H, Amaral MV, et al. Study of proprioceptive function in professional volleyball athletes with atrophy of the infraspinatus. *Br J Sports Med*. 2011;45(6):535.
SchmidtR.A.(1991). Motor learning and performance: from principles to practiceHuman Kinetics, Champaign, IL
Simon AM, Ferris DP. Lower limb force production and bilateral force asymmetries are based on sense of effort. *Exp Brain Res*. 2008;187(1):129–138.
Spirduso WW. Reaction and movement time as a function of age and physical activity level. *J Gerontol*. 1975;30:435–40.
Tang W T, Zhang W Y, Huang C C, Young M S, Hwang I S (2008). Postural tremor and control of the upper limb in air pistol shooters. *J Sports Sci* 26(14): 1579–1587.
Tomporowski PD, Ellis NR. (1986). Effects of exercise on cognitive processes: A review. *Psychol Bull*. 1986;99:338–46.
Welford AT. (1980) Choice reaction time: Basic concepts. In: Welford AT, editor. Reaction Times. New York: Academic Press; pp. 73–128.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp58-61
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Impact Of Combined Strength And Endurance Training On Muscular Strength Endurance On Basket Ball Inter University Players

Dr. Ramneek Jain
Assistant Professor
Shri JJT University, Jhunjhunu (Rajasthan)

Abstract
The reason for the present review was to find out the Impact of simultaneous quality and continuance preparing on Muscular quality perseverance on Basketball Inter University Players. To accomplish this reason for the review, thirty school young men from Dr Bhim Rao Ambedkar University, Agra were haphazardly chosen as subjects. The age of the subjects extended between 18 to 28 years. They chose subjects were separated into three gatherings of ten subjects each. Amass - I outlined quality preparing before continuance preparing, Group - II planned quality preparing after perseverance preparing and Group - III went about as control gathering did not take an interest in any extraordinary preparing program separated from their consistent exercises. The information was gathered at before and after the preparation program of nine weeks. Solid quality perseverance was picked as a foundation variable. The investigation of covariance (ANCOVA) was utilized to break down the information. The aftereffects of the review demonstrated that the Muscular quality continuance was altogether enhanced because of the simultaneous quality and perseverance preparing.

Key words: Concurrent strength, Endurance, Muscular strength endurance, Bent knee sit-up, ANCOVA

Introduction

Simultaneous quality and continuance preparing is attempted by various competitors in b-ball with an end goal to accomplish adjustments particular to both types of preparing. Writing discoveries to date, researching the neuromuscular adjustments and execution changes related with simultaneous quality and continuance preparing (alluded to as simultaneous preparing) have delivered conflicting outcomes. A few reviews have demonstrated that simultaneous preparing restrains the improvement of quality and power, yet does not influence the advancement of high-impact wellness when contrasted with either method of preparing alone. Different reviews have demonstrated that simultaneous preparing has no inhibitory impact on the improvement of quality and perseverance. Strength and endurance adaptations. Strength and endurance training regimes represent and induce distinctly different adaptive responses when performed individually. Typically, quality preparing programs include expansive muscle gather initiation of high-resistance low-reiteration activities to build the compel yield capacity of skeletal muscle (Sale et al 1990). Conversely, perseverance preparing is characterized as rehashed sub-maximal compressions with heaps of low resistance. (Dudley et al., 1985; Sale et al., 1990) When performed freely, these two particular types of preparing incite generally, inverse physiological adjustments inside the muscle. Thusly, the adjustment to preparing that the muscle continues is particular to the preparation boost.

At last, quality preparing upgrades drive generation of the skeletal muscles prepared.

La Chance et al.,(1987) The expanded drive generation is joined by an expansion in muscle cross-sectional zone and quick jerk fiber regionCostill et al., (1979), alongside increments in muscle contractile protein. Mc Donagh et al.(1976) conversely, continuance preparing viably builds the muscle's oxidative limit. Gollnick et al., (1973)

This adjustment is licensed to increments in moderate jerk fibre range &muscle mitochondria and vigorous catalyst movement In this review an endeavor is made to discover the simultaneous quality and perseverance preparing on Muscular quality continuance.

Methodology

Amid the preparation time frame, the trial bunches experienced their individual preparing program. Test aggregates in particular, Experimental gathering - I quality preparing before perseverance preparing, exploratory gathering - II quality preparing after continuance preparing and bunch - III went about as a control assemble, experienced their separate preparing program three days for every week for twelve weeks. Every day the preparation timetable was led just at night session that went on for 120 minutes. Earlier and after each instructional course subjects of exploratory gatherings had 20 minutes of warm-up and 20 minutes of warm down activities including running, portability and extending works out. Solid quality continuance measured by twisted knee sit ups test and the unit of estimation was scores in number of sit ups played out the subjects. Table-(A) demonstrates the dissected information on Muscular Strength Endurance. The pre-test method for Muscular Strength Endurance were 34.30 for trial amass I, 34.10 for exploratory gathering II and 33.90 for control assemble. They got "F" proportion of 0.14 was lesser than the table F-proportion 3.35. Consequently the pre-test was not noteworthy at 0.05 level of certainty for the degrees of flexibility 2 and 27.The post-test method for Muscular Strength Endurance were 41.50 for trial amass I, 36.20 for trial bunch II and 35.20 for control aggregate. They got "F" proportion of 63.36 was higher than the table F-proportion 3.35. Consequently the post-test was huge at 0.05 level of certainty for the degrees of opportunity 2 and 27.The balanced post-test method for Muscular Strength Endurance were 42.34 for exploratory gathering I, 36.20 for and trial bunch II and 34.36 for control aggregate. They got "F" proportion of 264.78 was higher than the table F-proportion 3.37. Consequently the balanced post-test was critical at 0.05 level of certainty for the degrees of flexibility 2 and 26.Since, three gatherings were looked at, at whatever point they got "F" proportion for balanced post test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in Table-(B).

Analysis of covariance of pre-test post test and adjusted post test on muscular strength endurance of experimental group I experimental group II and control group(Scores in numbers)

Test	Exp. Group 1	Exp. Group II	Control Group	SV	SS	df	MS	F Value
Pretest Mean	34.30	34.10	33.90	Between	0.80	2	0.40	0.14
S.D.	1.73	1.58	1.51	Within	77.90	27	2.89	
Post test Mean	41.50	36.20	35.20	Between	284.60	2	142.30	63.36*
S.D.	1.43	1.54	1.25	Within	59.70	27	2.21	
Adjusted Post test Mean	42.34	36.20	34.36	Between	258.92	2	128.96	264.78*
				Within	12.71	26	0.49	

*Significant at .05 level of confidence.
(The table values required for significance at .05 level of confidence for 2 and 27 and 2 and 26 are 3.35 and 3.37 respectively).

Table A

Scheffe's post hoc test-mean differences on muscular strength endurance among three groups. (Scores in numbers)				
Experimental Group I	Experimental Group II	Control Group	Mean Differences	Confidence Interval Value
41.34	36.20	--	5.14*	0.18
42.34	--	34.36	7.95*	0.18
--	36.20	34.36	1.84*	0.18
*Significant at .05 level of confidence.				

Table - B

Table-(B) demonstrates the scheffe's post-hoc test comes about. The requested balanced final mean distinction for Muscular Strength Endurance of test gatherings I, II and control gathering were tried for importance at 0.05 level of certainty against classified interim esteem. The mean contrasts between test assemble I and test aggregate II, exploratory gathering I and control amass and test bunch II and control gathering were 5.14, 7.95 and 1.84 separately and it supposedly was more noteworthy than the classified interim estimation of 0.18. Thus every one of the examinations was huge.

Discourse on discoveries the most vital purpose behind checking quality execution is to aid the assessment and movement of resistance-preparing programs. By and by, most fragments of the populace perform resistance preparing, from kids to the elderly, and the American College of Sports Medicine (1998, 2002) prescribes resistance preparing for incorporation as a rule wellbeing and wellness practice programs in grown-ups. The projects, and in addition the objectives for preparing, are different. The measure of quality improvement relies on upon the underlying level of strong wellness, practice remedy, time accessible, and targets of the program. Standard appraisal of solid quality empowers legitimate assessment of the practice medicine and adjustments when proper. The rate of quality increment contrasts impressively amongst untrained and prepared people, with prepared people indicating much slower rates of change. A general audit of around 150 reviews uncovered that increments in solid quality, by and large, are roughly 40% in untrained people, 20% in reasonably prepared people, 16% in prepared people, 10%in propelled people, and 2%in first class people over periods going from 4 weeks to 2 years. In spite of the fact that the preparation projects, lengths, and testing strategies of these reviews contrasted extensively, these information unmistakably demonstrate a specific incline towards slower rates of movement of quality advancement with preparing knowledge. Performing practices that include a low number of reiterations on a heap that is of high resistance adequately expands quality. (Dudley et al., 1985; Sale et al., 1990) It is of significance that competitors have elevated amounts of quality as well as perseverance. Hence many competitors' preparation programs include synchronous quality and perseverance preparing. Various reviews have been directed to research the conceivable obstruction impacts of performing quality preparing and continuance preparing simultaneously. Most have demonstrated that simultaneous quality and continuance preparing does in truth affect the advancement of quality or drive creation. Nelson et al. (1990) directed a review on already untrained subjects in which one gathering; quality prepared 4 days/wk for 20 weeks while another gathering played out a similar routine additionally performed perseverance on that days. The outcomes demonstrated that albeit both gatherings indicated increments in constrain generation, yet the quality preparing bunch indicated more prominent upgrades. Similar outcomes were found by Kraemer et al. (1995). Subjects in both the quality and simultaneous gathering demonstrated increments in muscle quality, however the quality just gathering indicated essentially more prominent increments than that of the simultaneous gathering. In addition, in a 10-week think about by Hickson et al. (1980), subjects in both the quality and simultaneous gatherings demonstrated increments in constrain generation.

Be that as it may, while the quality gathering expanded compel 6 generation for the whole 10 weeks, the simultaneous gathering showed a lessening in the most recent 2 weeks of the preparation program. These reviews display that preparation simultaneously for quality and perseverance affects the improvement of quality. Dudley et al. (1985), Hunter et al. (1987) and Hortobagyi et al. (1991) additionally observed comparable outcomes in their reviews.

Table-(B) demonstrates the scheffe's post-hoc test comes about. The requested balanced final mean distinction for Muscular Strength Endurance of trial gatherings I, II and control gathering were tried for centrality at 0.05 level of certainty against private interim esteem. The mean contrasts between test bunch I and test assemble II, trial aggregate I and control amass and test gather II and control gathering were 5.14, 7.95 and 1.84 separately and it apparently was more noteworthy than the private interim estimation of 0.18. Consequently every one of the examinations was huge.

Conclusion

1. The simultaneous quality perseverance preparing has delivered critical change on solid quality continuance more noteworthy than control gathering of school young men.
2. Solid quality perseverance exceedingly supported to quality preparing before continuance preparing more prominent than quality preparing after continuance preparing and control gathering of school young men.
3. Quality preparing after perseverance preparing likewise create little impact on strong quality continuance when contrast and control amass.

References

1. Costill, D.L., Coyle, E.F., Fink, W.F., Lesmes, G.R., and Witzmann, F.A. (1979). J. Appl. Physiol. 46:96-99.
2. Dudley, G.A., and Djamil, R. (1985). Incompatibility of Endurance and Strength Training Modes of Exercise. J. Appl. Physiol. 59:1446-51.
3. Gollnick, P.D., Armstrong, R.B., Saltin, B. (1973). Effect of Training on Enzyme Activity and Fiber Composition of Human Skeletal Muscle. J. Appl. Physiol. 34:107-111.
4. Hickson, R.C. (1980). Interference of Strength Development by Simultaneously for Strength and Endurance. Eur. J. Appl. Physiol. Occup. Physiol. 45:255-263.
5. Hunter, G., Demment, R., and Miller, D. (1987). Development of Strength and Maximum Oxygen Uptake During Simultaneous Training For Strength and 14
6. Kraemer, W., Patton, J., Gordon, S., Harman, E.A., Deschenes, M.R., Reynolds, K., Newton, R.U., Triplett, N.T., and Dziados, J.E. (1995). Compatibility of High- Intensity Strength and Endurance Training on Hormonal and Skeletal Muscle Adaptations. J. Appl. Physiol. 78(3):976-989.
7. La Chance, P.F., Hortobagyi, T., and Katch, F.I. (1987). Effects of Free Weight and Hydraulic and Isokinetic Tests. Med. Sci. Sports Exercise. 19:S88.
8. Nelson, A., Arnall, D., Loy, S., Silvester, L.J., and Conlee, R.K. (1990). Consequences of Combining Strength and Endurance Training Regimens. Phys. Ther. 70(5):287-294.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp62-64
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Effect of yogic practices on selected Psychological, skill and motor Related physical variables of college Women Hockey and basket ball players

Aparna Alva.N,
Research Scholar, Department Of P.G Studies And Research In Physical Education And Sports, Mangalore University, Mangalagangothri.
Gerald Santhosh D'souza,
Deputy Director, Department Of P.G Studies And Research In Physical Education And Sports, Mangalore University, Mangalagangothri.

Abstract
Health,physical fitness and emotional stability are the objectives which bring yogaand physical education in common platform for the benifit of the human race. Investigators have made an effort to find out the effect of yogic practices on psychological, skill and motor related physical variables of Women College players of Hockey and Basket ball belonging to the age group 17-25. Correspondingly, Players were randomly assigned into two groups; the experimental and the control group. Each game consisted of 100 players, and were further divided into 50 each for experimental and control group. Experimental group practised yoga for six weeks while control group was not assigned.bothhockey and basketball players were tested using standardized tests before and after the six weeks oftraining period, perception test, agility test,skill test was done.Result concludes that After the post test there was significant changes in perception, agilityand skill performance was improvedinboth experimental group of hockey and basket ball.Key word- Perception, Control group, Experimental group, Skill, Psychological etc.

Introduction:
Yoga is said to be a way of living. Yoga is beneficial for both physical and mental fitness. Yoga practices keeps body fit and ensure that body parts remain intact. It enables us to develop complete control over physical functions as well as mental abilities. Physical benefits from yoga are, improved flexibility build up muscle strength and good posture. Yoga increases a player's stamina and creates balance and also stimulates the glands of the endocrine system with many other body improvements. This may prove to be very helpful to the players for better performance.
Perception:Perception, in general, is the ability to see, hear, identify or become aware of our surrounding through our senses. In sports perception comes to picture where player's need skills like tackling and goal shooting. The players need to be perceptual about the distance of the ball, goal post or the opponent. The process of perceiving can be improved in a number of ways. One of them is yoga.
Agility:Agility is an ability to respond to actions quickly and easily. In sports it is ability to rapidly change the body movements in accordance to the surrounding. Quickness and agility are usually referred as same. But while quickness refers to ability to accelerate in one direction, agility is ability to accelerate in multiple directions.
Dribbling:Dribbling is skillfully moving or manipulating a ball while moving in a particular direction, avoiding the attempt of the opponent to take the ball.

Methodology: 200 female in the age group 17-25 players of college level were selected for the study. Each group consisted of 100 subjects each in Hockey as well as in Basketball, further divided in 50 each for experimental and control group. Experimental group practiced yoga for six weeks while control group was not assigned. Subjects of two groups tested using standardized tests, the Howarddolman apparatus perception test was taken for the ,measurement of perception test, and Illinois test was for agility. For testing dribbling skills of players for basketball, AAHPERD control dribble test was done whereas for hockey, test for 25 yards straight dribble was done. pretest and posttest measurement recorded. The entire test were explained and demonstrated to the students by the investigators and further tests were implemented with the help of assistants.

Selection Of Variables: The researcher reviewed the available scientific literature and journals and discussed with experts. The investigator considered the criteria of feasibility and availability of the instruments and the relevance of variables to the present study.

Independent Variables:

Also the selection of asanas is based on the basic that all the parts of body should involve in performing asanas.

I. Standing postures: 1.Vrikshasana 2.Thrikonasan 3.Garudasana

II.Sitting postures: 1.Paschimottanasan 2.Shashankasana 3.Vajrasana

III.Laying down postures 1.Bhujangasana, 2.Dhanurasana, 3.Sarvangasana, 4.Halasana, 5.Savasana. 6.Naukasana 7.Purvathasana IV. Meditation

Dependent Variables:

Perception: Psychological variable(Howard dolman apparatus used for perception test)

Agility: Motor related physical variable(Illinois agility test)

Basketball Dribbling: Skill variable(Basketball AAHPERD control dribble test)

Hockey Dribbling: Skill variable(25 yard straight dribbling - SAI test)

Table 1: The effect of yoga practices on perception of Control group and Experimental group in Hockey and Basketball

Game	Group	Test	N	Mean	"t" value	"p" value
Hockey	Experimental	Pre	50	2.54 ± 0.19	7.45	0.000 NS
		Post	50	1.730 ± 0.14	7.45	
	Control	Pre	50	2.488 ± 0.17	-0.17	0.887 NS
		Post	50	2.522 ± 0.18	-0.17	
Basketball	Experimental	Pre	50	2.510 ± 0.21	6.13	0.000 NS
		Post	50	1.804 ± 0.16	6.13	
	Control	Pre	50	2.710 ± 0.26	1.378	0.174 NS
		Post	50	2.660 ± 0.26		

Values are given as Mean ± SEM for groups of fifty subjects each. The level of significance is taken at 0.5 with df 49.

There is no change in the perception level of control group while the experimental group shows highly significant difference for hockey as well as basketball. So it can be concluded that the yogic practices may have most likely helped the experimental group to improve their perception for both the game

Table 2: The effect of yoga practices on agility of Control group and Experimental group in Hockey and Basketball

Game	Group	Test	N	Mean	"t" value	"p" value
Hockey	Control	Pre	50	19.60 ± 0.09		
		Post	50	19.58 ± 0.09	1.88	0.066 NS
	Experimental	Pre	50	19.53 ± 0.09		
		Post	50	19.45 ± 0.07	2.50	0.016 S
Basketball	Control	Pre	50	19.99 ± 0.12		
		Post	50	19.94 ± 0.11	1.86	0.069 NS
	Experimental	Pre	50	19.93 ± 0.08		0.002 HS
		Post	50	19.73 ± 0.08	3.31	

Values are given as Mean ± SEM for groups of fifty subjects each. The level of significance is taken at 0.5 with df 49. The values are expressed in seconds. There is no change in the agility level of control group while the experimental group shows significant difference for hockey and highly significant difference for basketball. So it can be concluded that the yogic practices helps the experimental group to improve their agility for both the games.

Table 3: The effect of yoga practices on dribbling skills of Control group and Experimental group in Basketball (AAHPERD control dribble test)

Group	Test	N	Mean	"t" value	"p" value
Control	Pre	50	11.53 ± 0.12	0.61	0.547 NS
	Post	50	11.50 ± 0.16		
Experimental	Pre	50	10.96 ± 0.14	5.20	0.000 HS
	Post	50	10.87 ± 0.13		

Values are given as Mean ± SEM for groups of fifty subjects each. The level of significance is taken at 0.5 with df 49. The values are expressed in seconds.

There is no change in the dribbling skills of control group while the experimental group shows highly significant difference for the test. So it can be concluded that the yogic practices influence on the experimental group to improve their dribbling skills for basketball.

Table 4: The effect of yoga practices on dribbling skills of Control group and Experimental group in Hockey (25 yard straight dribble test)

Group	Test	N	Mean	"t" value	"p" value
Control	Pre	50	5.13 ± 0.056	0.59	0.560 NS
	Post	50	5.10 ± 0.055		
Experimental	Pre	50	5.18 ± 0.056	4.39	0.000 HS
	Post	50	4.95 ± 0.068		

Values are given as Mean ± SEM for groups of fifty subjects each. The level of significance is taken at 0.5 with df 49. The values are expressed in seconds.There is no change in the dribbling skills of control group while the experimental group shows highly significant difference for the test. So it can be concluded that the yogic practices influenced on the experimental group to improve their dribbling skills for hockey

Conclusion:

This study provides evidence that the six week practice of yoga asanas has resulted in improvement in perception, agility and dribbling skills of Hockey and Basketball players and thus shows positive impact of yoga on physical, psychological and skill variables. The researcher recommends the use of Yogic practices to players as it has improved their abilities. So it can be concluded from the study that perception ,skill and agility can be increased with the practice of selected asanas. Further research is recommended on players of other games which require such abilities and neuromuscular coordination.

References:

ChethanSharma(2013),Laws and Rules of Various Sports, Manoj Publications 1583-84, Daribakalan, ChandniChowki, Delhi. ISBN: 978-81-310-1123-2.

N.S. Ravishankar(2002),Yoga for Health, Pustakmahal, Daryaganj, New Delhi. ISBN: 978-81-223-0724-5.

Kandhan S. Laxmi(2012), "Effects of yogic practices and physical exercises on selected psychological variables among elderly people," yoga mimansa, 3(XLIV), pp. 180-187

Bhogal R. S. (2010), "Yogic life style for stress, anxiety & Depression," Journals of National Yoga Week, pp.113-1

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp65-68
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Relationship Between Self-Concept And Interpersonal Competence In*paf Uny* Athletesin Women Futsal Super League 2016 Championship

Komarudin
komarudin@uny.ac.id
Faculty of Sport Sciences
Universitas Negeri Yogyakarta

Abstract

An athlete is a social being who will always be in contact with others. In order to establish effectiveinterpersonal relationship, interpersonal competence or the ability to establish interpersonal relationship is needed. This study aims to determine the relationship between self-concept and interpersonal competence in*PAF UNY*athletes in Women Futsal Super League 2016 championship.This is a quantitative research using self-concept scale and interpersonal competence scale compiled by the researcher. The result showsthat the self-concept scale consists of 28 items with α = 0.9080 and the interpersonal competence scale consists of 31 items with α = 0.9074. The data wereanalysed by using simple regression analysis. The hypothesis of this study was there is a positive relationship between self-concept and interpersonal competence in *PAF UNY*athletes in Women Futsal Super League 2016 championship. Athlete who have more self-concept have higher interpersonal competence andthose who have less self-conceptperform lower interpersonal competence. The subject of this research was 25 *PAF UNY*athletes in Women Futsal Super League 2016 championship.

The result of the data analysis shows that there is a significant correlation between self-concept and interpersonal competence in*PAF UNY*athletes (r_{xy} = 0.572 with $p < 0.05$).It means that the hypothesis stating that there is positive relationship between self-concept and interpersonal competence of UNY PAF athletes isproven. The relationship shows that the higher the self-concept possessed, the higher the interpersonal competence performed by*PAF UNY* athletes, and vice versa. The effectiveness of self-concept toward interpersonal competence is 0.327. This number indicates that interpersonal competence of *PAF UNY*athletes is 32.7% determined by self-concept and the rest(67.3%) was determined by other factors not revealed in this research.

Keywords: self-concept, interpersonal competence and PAF UNY athletes

Introduction

Human beingscan not live without others, sothey will always try to establish relationships. According to Sumardjono (1992) the relationship among humans is a phenomenon of individual needfulfilment done by one another to develop and sustain life. Nashori (2003) states that various views and life experiences show that the success of human life is largely determined by his ability to manage himself and the ability to manage his relationships with others.An athlete, as a human being, certainly can not be excluded from the nature to always connect with others. *PAF UNY* athletes which consist of students of senior high school as well asuniversity students are intellectuals who are currently studying in schools and universities and are expected to be able to act as skilled leaders, either as leaders of a community, a country, or the workforce (Aryatmi, 1992). Students are generally aware that seeking to become intellectuals in the future should not only be done by pursuing knowledge and intelligence, but also by establishing social interaction and doing something for human life (Juriana, 2000). They are expected to engage in

social interaction not only in the faculty where they study, but also to other people outsidethis place.

Interpersonal relationships established among*PAF UNY*athletes often can not be separated from the interpersonal conflictsarisingfromtheirinteractions. Conflicts can arise because ofdifferent characters in each of them.Ethnic andreligiousdifferences sometimes can also cause friction between them in the same way as different interests may also have the potential to cause conflict. Besides, different courses taken by students from different study programs often lead to clashes where theyfind it is difficult to meet other board members.Thus, the effort to find the right meeting time and also the ability to minimize conflicts that mayarisefromthose differences are really needed.The ability to resolve conflicts is necessary so as not to harm the relationship that have been established. In addition to that, individuals who become athletes in a sport club must be more openwith others, always be active, not dependent on others and show good cooperation with other members. The ability to resolve conflicts and be open with others are some of the characteristics of individuals with interpersonal competence (Buhrmester, Furman, Wittenberg and Reis, 1988). Interpersonal competence is the ability to make a close relationshipwith others experienced by an individual where there are elements of mutual attentionin that relationship (Pace in Sukmono, Djohan and Ellyawati, 2000).

The relationship among athletes of *PAF UNY*iscertainly not an ordinaryrelationshipwhich is superficial. They established a close deep relationshipamong one anotherwhere they need the ability to adapt to each other. Those who can adapt easily when gathering with others in a group are individuals with good interpersonal competence asthe ability to interact with others in a group is really needed when there are many people with various characters. Good interpersonal competence will lead to pleasant interaction which is full of comfortable experiences (Bittner in Binacawati, Mawardi and de Queljoe, 1999).

Generally conflicts occur because of unexpressed dislike to others so that the interpersonal relationshipbecomes disrupted, communication becomes uneasy and itinterferes with the coordination in running an activity. This lack of openness also affects the process of expressing ideas or opinions in a meeting.There are some board members who feel unconfident and embarrassed to express their ideas publicly for fear of not being accepted.

Feelingsofinferiority, closednessandanxiety in conveyingopinionsthatexist in *PAF UNY*athletescertainlymustbereduced. Partosuwido (1993) statesthatfeelings of lowself-esteem, closedness, highanxiety, unabletocontroloneselfandeasilyinfluencedbyotherswillinterferewithinterpersonalrelationshipandweaken ones'interpersonalcompetence.All those feelings will lead to uneasy and uncomfortable relationship. Partosuwido (1993) alsostatesthatindividualswho feelinferior, anxious, andeasilyaffectedtend tohave a negativeself-concept. They will find difficulties in adjusting to their environment and feel a lot of anxiety in their interpersonal relationships which will interfere with the ability to connect with others.

In addition, Grinder and Surakmed (in Juriana, 2000) say that individuals with positive self-concept will have positive self-confidence and it makes them easily suit their social environment. Lack of confidence can be an obstacle for athletes of *PAF UNY* to establish interpersonal relationship with others. The athletes who do not have positive self-esteem will tend to withdraw from their environment which worsen their adjustment ability and will certainly interfere with the interpersonal relationships that have been established and hinder themselves in their effort to establish relationship.

Based on the background of the problem above, it is interesting to examine whether there is a relationship between self-concept and interpersonal competence in *PAF UNY*athletes In Womens Futsal Super League 2016 championship.

Research Method

Operational Definition of Research Variables

1. Interpersonal Competence

Interpersonal competence is a person's ability to initiate interpersonal relationship, to open up, to be assertive, to give emotional support and to manage and resolve conflicts arising from interpersonal relationships. It is measured from the interpersonal competence scales based on the aspects of interpersonal competence of Buhrmester, Furman, Wittenberg and Reis (1988).

The higher the score obtained by the research subjects, the higher the interpersonal competence they have.The lower the score obtained, the lower the interpersonal competence they possessed.

2. Self-concept

Self-concept is the views, thoughts and feelings about oneself. It is revealed from the scale of self-concept based on physical, personal, social, ethical moral and family aspects. The higher the score obtained by the research subjects, the more positive the self-concept they possessed and the lower the score obtained, the more negative the self-concept they have.

Technique of Data Analysis

The method used for data analysis in this research was simple regression analysis technique. In accordance with the purpose of this study, which is to find the relationship between self-concept and interpersonal competence in *PAF UNY* athletes, simple regression analysis was intended to find out the relationship between self-concept and interpersonal competence, to test its significance level, and to seek effective contribution of the predictor variable (Hadi 1995). This study used simple regression analysis by using SPSS for Windows 11.0 computer program.

Research Findings

Normality Testing

The normalitytestingwas performed to determine whether the data was normally distributed or not. The distribution normality is an assumption that must be met in the parametric statistics. The normality test of data distribution of this research was done by using Kolmogorov-Smirnov Goodnes of Fit Test technique. The normality test result indicates that both of theseresearchvariables have normal distribution.

Linearity Testing

The linearitytestingwas intended to find out the relationship between the two research variables. The testshowedthattherelationshipbetweenthetwovariablesis linear (Flin = 56,888) with p = 0,000 (p <0.05). It means the relationship between interpersonal competence and self-conceptis linear.The linear relationship between the two variables qualifies for the use of the regression analysis model to predict the relationship between self-concept and interpersonal competence.

Hypothesis Testing

The relationshipbetweenself-conceptandinterpersonalcompetencewasshownbythecoefficientRxy = 0.572 with p <0.05 withpositiverelationshipindicating thatthehigherthe self-concept possessed by an athlete,thehighertheinterpersonalcompetence they haveandviceversa. The significance level of 0.00 (p <0.05) indicates that there is a significant relationship between self-concept and interpersonal competence. Thus the hypothesis that there is a positive relationship between self-concept and interpersonal competence in *PAF UNY*athletes is acceptable.

R square is 0.327. This figure shows that self-concept giveseffective contribution for 32.7% in interpersonal competence. This means that the self-concept in *PAF UNY*athletesdeterminedtheir interpersonal competence for 32.7% while the rest (67.3%) is determined by other factors not revealed in this study, such as age, contact with parents, interaction with peers, social participation and religious maturity. The regression equation between self-concept and interpersonal competence can be arranged as follows:

Y= 48,302 + 0,480X

This regression equation can be interpreted that the constant of 48.302 indicates that if there is no self-concept then the interpersonal competence equals to 48.302 whereas regression coefficient of 0.480 indicates that each addition of self-concept will increase the interpersonal competence for 0.480.

Discussion

The result of the hypothesis testing shows that there is a positive and significant correlation between self-concept and interpersonal competence of *PAF UNY* athletes shown by correlation rxy = 0.572 with p = 0,000 (p <0.05). Thatresult indicates that the higher the self-concept possessed by *PAF UNY* athletes, the higher the interpersonal competence they have. This result is in accordance with the proposed hypothesis that there is a positive relationship between self-concept and interpersonal competence in *PAF UNY* athletes.

High self-concept will make it possible for *PAF UNY*athletes to have better interpersonal competence and low self-concept will lower the interpersonal competence of *PAF UNY*athletes. Board members who are lack of interpersonal competence will be difficult to establish interpersonal relationships with other members and to create a better situation.Otherwise,athletes of *PAF UNY* who have good interpersonal competence will easily establish harmonious interpersonal relationships with other board members.

Based on the results of this study, the self-concept of *PAF UNY* athletes will affect their interpersonal competence. The hypothesis testing in this study proved that self-conceptis one factor that helps determine the success of a board member in establishing relationships with other members. Accepting oneself will lead a person to have high appreciation of himself and

understand his limitations.Those with such personalities will be better to establish interpersonal relationships with others.

The research shows that most of *PAF UNY*athletes have high interpersonal competence. A board member with high interpersonal competence will be able to foster effective interpersonal relationships with others. It makes them easier to establish warm interpersonal relationships with others from different backgrounds. They also tend to be open and adaptable in new situations. In addition, they will be more sensitive to others' conditions.The habit to live together and develop intensive interactionwith others make one's interpersonal competence grow and develop well (Danardono,1997).Intensiveinteractionwiththeenvironmentwillfurtherenhancetheinterpersonal competenceof*PAF UNY* athletes sinceinteractingwithothers will eventually increasetheirabilitytocope with people in differentcharacters. This will help foster new interpersonal relationships and strengthen established relationships.The result of this study also shows that the self-concept of *PAF UNY*athletes is high. This indicates that they have a positive self-concept. The positive self-concept allows them to have more stable views and feelings about themselves,knowtheir strengths and weaknesses, and not rely on others. Lukman's research (2000) found that positive self-concept will be able to influence individual's independence.

The result that needs to be considered is the effectiveness of the regression which was 32.7%. This figure indicates that the interpersonal competence of *PAF UNY*athletes was 32.7% determined by self-concept and the rest (67.3%) was determined by other factors not revealed in this research. These factors include contact with parents, interaction with friends, social participation, and religious maturity. Individuals with positive self-concept can understand themselves, both their strengths and weaknesses..

According to Nashori (2000),having good interpersonal relationships with others is a good asset. With such quality, one is regarded to have high interpersonal competence. People with positive self-concept qualitiessupport the realization of smooth interpersonal interaction.

Rachmat (2000) states that individuals with positive self-concept willfeel equal to others. This equality becomes an assetfor them so thatthey do not have any obstacle to establish relationships with others. This equality allows them to resist any attempt of domination from others. Individuals with positive attitudes toward themselves will be more sensible of the needs of others, accepted social habits, and the idea that they can not have fun at the expense of others. The high sensitivity of a person with positive self-concept will lead to the ability to provide emotional support to others.

Conclusion

There is a positive relationship between self-concept and interpersonal competence in *PAF UNY* athletes. Athletes with more positive self-concept have higher interpersonal competence and vice versa. The self-concept contribution to interpersonal competence is 32.7%. It indicates that self-concept is not the only factor affecting the interpersonal competence of *PAF UNY* athletes.

References

Aryatmi, S. (1992). Membina Pribadi Mahasiswa melalui Perguruan Tinggi in*Kepribadian Siapakah Saya?* (peny. Kartono Kartini). Jakarta: Rajawali.

Binacawati, F, Mawardi, A dan de Queljoe, D. (1999). Pengaruh Keikutsertaan pada Kegiatan Olah Raga terhadap Kemampuan Hubungan Interpersonal In*Anima*.14, 54. Surabaya.

Buhrmester, Furman, Wittenberg and Reis. (1988). Five Domains of Interpersonal Competence in Peer Relations. *Journal of Personality and Social Psychology*. 55, 6: 991-1008.

Hadi, S. (1995). *Analisis Regresi*. Yogyakarta: Yayasan Penerbit Fakultas Psikologi UGM.

Juriana. (2000). Kesesuaian antara Konsep Diri Nyata dan Ideal dengan Kemampuan Manajemen Diri pada Mahasiswa Pelaku Organisasi Universitas Gajah Mada in*PSIKOLOGIKA*. V, 9:65-75. Yogyakarta.

Kartono, K. (2001). *Pemimpin dan Kepemimpinan. Apakah Pemimpin Abnormal itu?*. Jakarta: Rajagrafindo Persada.

Lukman, M. (2000). Kemandirian Anak Asuh di Panti Asuhan Yatim Islam ditinjau dari Konsep Diri dan Kompetensi Interpersonal in*PSIKOLOGIKA*. V,10. Yogyakarta.

Nashori, F. (2000). Hubungan antara Kematangan Beragama dengan Kompetensi Interpersonal Mahasiswa in*PSIKOLOGIKA*. V, 9. Yogyakarta. (2003). Kompetensi Interpersonal Mahasiswa ditinjau dari Jenis Kelamin in*Jurnal Psikologi* no.1. Yogyakarta.

Partosuwido, SR. (1993). Penyesuaian Diri Mahasiswa dalam Kaitannya dengan Konsep Diri, Pusat Kendali dan Status Perguruan Tinggi in*Jurnal Psikologi*. Yogyakarta:UGM.

Rakhmat, D. (2000). *Psikologi Komunikasi*. Bandung: Rosdakarya.

Soemardjono. (1992). *Liku-liku Relasi Antarpribadi dan Permasalahannya dalam Kepribadian Siapakah Saya?* (peny. Kartini Kartono). Jakarta:CV Rajawali.

Sukmono, M.S, Djohan, R.T dan Ellyawati, R. (2000). Keterkaitan antara Kemampuan Menjalin Hubungan Interpersonal dengan Penghayatan Hidup secara Bermakna. In *FENOMENA*. V, 6:27-34. Surabaya

Winarsunu, T. (2004). *Statistika dalam Penelitian Psikologi dan Pendidikan*. Malang: Penerbitan Universitas Muhammadiyah Malang.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp69-71
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Takraw's Thailand League Sports Management Model

Pawares Phantayuth, Issadee Kutintara, Ph.D., Pongsak Swatdikiat, Ph.D.
Faculty of Sports Science,
Kasetsart University, Thailand
Phantayuth@hotmail.com

Abstract
The aim of this study was: 1) study about basic information and necessary factors to development of Takraw's Thailand League. 2) to form Takraw's Thailand League management model and 3) to evaluate Takraw's Thailand League management model. This study was used the mixed methodology of qualitative research and quantitative research. This study used 3 steps were: 1. To study the basic information and necessary factors for develop Takraw's Thailand League base on 4Ms theories. 2. Delphi technique was used to create a Takraw's Thailand League management model by interview 6 Takraw experts. Questionnaires were distributed back and forth to confirm the answers and to obtain the central tendency. The statistics involved were median and the interquartile range. 3. The model obtained was evaluated by 100 stakeholders whether it is practical in professional Takraw management. After that the model was evaluated by a group discussion among 6 administrators. The statistics used were mean and standard deviation. The results showed that the management model of Takraw's Thailand League which appropriate for Takraw Association of Thailand. There are four functions of management were: club and personal, money and financial, management, facilities, field, and equipment. Takraw's Thailand League management model evaluation was found to be practical at the high level. Key word: Model, Sport management, Takraw's Thailand League

Introduction The development of professional sports requires international standard quality, and professional athletes. Athlete with high talented were supported by the audience and sponsors. Base on the National Sports Development Plan Sports No# 5 has defined in 4 purpose were: 1) to promote and sustainable development Thai sports and international sports become an international sports. 2) to development of whole cycle of all group of sports personal, establish sports institute for produce sports personal and relate, encourage the group members or fans of the clubs covering in all levels. 3) to develop sports system and sports mechanism for sports competition become an international standard by modern rules and regulations. 4) the development of professional management by private sector and government sector to supporting the funding and promoting the welfare of professional sports, to protect and preserve the rights or benefits. The development of sport for professional purposes can be considered as an important factor in economic, social development, country image. Currently, professional sports can be considered as an indicator of the development country. Takraw's Thailand League was declaring itself as a professional athlete for 10 years, no visitors, no audience to watch it. The development of Takraw's Thailand League did not succeed in becoming a professional sports. Because of the athlete in the Thai League is still working as a main occupation. Play Takraw is a supplementary occupation. The past 14 times of the tournament have few audience and visitors in the event and less colorful in the events. Include a different of competition pattern from the general competition, lack of standardized competition management, lack of creating popularity in sport takraw public relations fan club development, lack of athletic development and sports personnel. Business management and benefits to strengthen the club were not success.

According to Takraw's Thailand League, still lack of direction in the operation , lack of systematic and pragmatic planning and support. Therefore, Takraw's Thailand League has not been successful because of development was not continue, club and member have no income to supported them. Researcher was aiming to create Takraw's Thailand League management model. The finding of this study will be a guideline to develop Takraw's Thailand League management. Which is a local sport of Thailand become a standard format and continue to be a sustainable professional sports. Objectives of the study 1 . To study the basic information and necessary factors for develop Takraw's Thailand League 2. To create a Takraw's Thailand League management model. 3. To evaluate Takraw's Thailand League management model. Literature Review 1.The 4Ms theory concept Tida Pahom (2001: 20), The management or management resources consist of 4Ms features as follows: 1) Man (Man) is a human resource that is of paramount importance. To accomplish a lot in terms of workload and quality. 2) Money is an important factor in providing support in the provision of resources so that the activities of the organization proceed without interruption. The capital is both shortterm and long-term, plus the cost of money is interest. 3) Material is a high volume and high value to be used for production support and create a service all the time. 4) Management is about executing in accordance with the management plan. So, it can be concluded that the basic for effective management should consist of 4 things called 4 Ms were: Man, Money, Material and Management. 2. Concepts and theories about management Siriwan Sareerat and team (1999). said about management process which consist of management resources used to achieve the objectives of the management process were: 1) Planning 2) Organizing 3) Leading 4) Controlling From the definition, there are 3 key words: Process, Management Resources. And purpose written as The chart is as follows. Figure 1 Management process in the organization. Source: Siriwan Serirat (1999: 20-22). INPUT is the management resource (Management Resources), including 4Ms consists of (Man), Money, Material, and Method / Management are imported into the system for processing or services that are growing and developing along with the manufacturing and manufacturing industries. Rapidly growing and rapidly evolving services make only four resources not enough. It has increased 2 M's were: machine and market. At the same time, the worker mind, satisfaction and emotion were important. Thus, Morale is added to 7M's And when the world become smaller by communication system was linked to a global network, making communication fast, anyone who did not know or did not have information would be disadvantaged in business. The message is added to 8 M's in the present time. PROCESS is the basic duty or activity that an executive must be work on. Currently, there are 4 responsibilities: POLC Planning, Organizing, Leading and Controlling, which has time line development was start since the days of Henri Fayol in the year 1916 he saw that management duties Composed of POCCC include: Planning, Organizing, Commanding, Coordinating, Controlling. In 1937, Gulick and Urwick saw that the management process consisted of: Planning, Organizing, Staffing, Directing, Coordinating, Reporting, and Budgeting, commonly referred to as POCDCORB. In 1972 , Harold D. Koontz present management functions of POSDC include planning, organizing, staffing, directing and controlling. The concept changed significantly. In 1988, Koontz and Weihrich wrote a book called " Management" and changed the management function from " D" (Directing) to "L" (Leading) development of the concept continues to move on. OUTPUT is goals or objectives of the organization . It is the result from the second stage of processing. Organizational goals can be classified into two categories: Profitorganization and non-profit organizations, or organizations with the objective to producing goods and provide services.

Methodology

This study used the mixed methodology of qualitative research and quantitative research by setting up three stages of research as follows: Step 1: Study the basic information and necessary factors for develop Takraw's Thailand League. Step 2: Creating a Takraw's Thailand League management model. Step 3: Evaluate Takraw's Thailand League management model. Result and Discussion The results of the study was show Takraw's Thailand League management model which appropriate with Takraw Association of Thailand were have 4 functions as follows: club and personal, money and financial, management, facilities, and material. Club and Personnel, The personnel planning process of the club should consider with 1) The club's management should be a professional manager. 2) Referee There should be a international standard or national standard. 3) Trainers and coach should be knowledgeable, competent,

recognized by relevant agencies, full of ability to train and develop athletes, as well as the recognition of athletes, and innovative. 4) Athletes should have clear selection criteria.

There are regulations for the management of sport. This study to be in line with Ongard Gorsinka (Ongard Gorsinka: 2548) which studies the factors affecting the success of the Thai Football League. The club management model in Thailand Football League is a professional career. Factors affecting the success are 7 factors: 1) Political factors and budget support 2) Athlete factors 3) Coaching factors 4) Public relations factor 5)Judging factor 6) Factors Fan side 7) club and competition factors. In addition, the confidence factor in the management team. The vision of club success and expectations is part of supporting the team's success. The budget (Money) Planning Through the budget planning process was related to government budgeting and sponsorship budgeting. So, the financial plan should to support all management process of the club and association. Moreover, clubs were the private sector few of them were government sector so accuracy of financial plan was necessary to develop. This study was relate with Saguan Jirakraisothorn (Saguan Jirakraisothorn: 2555) said about the new management for football clubs to succeed. The results show that the successful budget management were discipline and welfare should be set as transparently as any other business, so that athletes and club personnel are secure in their careers. Management, using conceptual framework for occupational sport is important. That is sports business. It's not about sports for excellence. Vision is defined, Set goals, define strategies,define values and beliefs. The structure of the operation must be clear, transparent and accountable. In addition, the association should include foreign athletes, such as Malaysia, where athletes are exchanged or borrowed for marketing purposes. The next step were produce club Manager, competition manager, tournament manager, match Manager, benefit Manager, marketing manager, financial manager, fan and public relations manager, and etc. The third step is the staffing process. The fourth step is the directing process. It is the task of artistic management in the workplace, which should be the operational guidelines of the club. Controlling is the final step in management. This is a guideline for carrying out various tasks. This study was in line with Taweesub koeipakvaen (2555) found that futsal Sports Management in Thailand It should consist of four types of structures: 1) Club management 2) Budget 3) Marketing, membership benefits and fan club and 4) Futsal player development. And in line with Mr.Nonchai Santibut (2008) said that the professional football development in Thailand should to consist of four functions of professional football management were: planning, organization, leading and control. Facilities, field, and equipment (Material), It should be planned to manage the stadium and practice field to international standards to prevent injury to athletes. There are facilities to practice and adapt to the competition and to the comfortable for the audience, the venue for viewing and cheering. Moreover,Training ground and equipment are in good condition, a safety practice manual, seating arrangements are provided for executives, referees, trainers, athletes and visitors, etc. Technology is used in the field of competition and practice. The atmosphere should be colorful. Improvement of the playing field and the training field to meet the standards. This study was in line with Saguan Jirakraisothorn (Saguan Jirakraisothorn: 2555) states that the club should create a standardized playground and take advantage of the surrounding area of the stadium to get more income and public relation.

Reference

Koeipakvaen, T. (2012). Model of Professional Futsal Management in Thailand. Thesis, Ph.d. sports science, Burapha University. Gerrard, B. (2005). "A resource-Utilization Model of Organizational Efficiency in Professional Sport team." Journal of Sport Management.19(2): 143-169. Lussier, Robert N., and Kimball, David. 2004. Sport Management. Mason, Ohio: South-Western. Shank, M.D. (2009). Sports Marketing: A Strategic Perspective. 4th ed. Pearson International Edition. Prentice–Hall. Whannel, Gary W. (2002). Media Sport Star. London: Routledge.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp72-76
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Management Model Of Regional Sport Science Center

Athiwat Dokmaikhao, Issadee Kutintara, Ph.D.,Vullee Bhatharobhas, B.Ed.
Faculty of Sports Science, Kasetsart University, Thailand
busct_1975@windowslive.com

Abstract

The purpose of this research was to construct the management model of regional sport science center. The mixed methodology, qualitative research and quantitative research, was used in this research. The subjects in this research were 132 administrators and staff from Regional Sports Authority of Thailand, Institute of Physical Education and Sports Schools under the Ministry of Tourism and Sports. The findings revealed that the management model of regional sport science center comprised People, Resources, Innovations and Ideas, Marketing, Operations and Finance. Each aspect was conducted in four-stage management procedures containing Plan (P), Do (D), Check (C) and Action (A). This constructed model, the appropriateness and the possibility of which were examined and found at the acceptable level could be applied by sport science centers to serve their objectives, goals and happening situations for the development of athletes, people in general, communities, society and country.
Keywords: model, management, sport science center

Introduction

Nowadays, many countries around the world including Thailand pay more attention to health, physical fitness, exercise and sports. The Thai government has recognized the importance of sports which can lead to the human resource development. Consequently, the Ministry of Tourism and Sports made the national sports development plan, volume 5 (2555B.E. - 2559B.E.) in order to be the framework of development in sports and health. This plan aims at promoting Thai people to exercise and play sport as their way of life, achieving good health and fitness, raising their awareness of moral and ethics, creating sporting spirits for the country's harmony and reconciliation, and arrange systematic management based on the utilization of sports science to strengthen the athletes at their full potential. Sports science pays an important role on every strategy of this plan because it can develop the athletes and the people in general to achieve best sports performance or good health and fitness (Ministry of Tourism and Sports, 2012). Moreover, the national sports development plan, volume 6 (2560B.E. – 2564B.E.) settled four missions for sports development in every dimension. Social dimension focuses on raising awareness of children, youths and people in general to pay more interest and participate in sports, exercising and recreational activities. Economic dimension emphasizes on brushing up the sports management system into the sports business to make career and add economic values. So, sport science center is an important part of success to reach these goals. Also, Sports Authority of Thailand created its strategic plan saying that discovering new knowledge in sports science is an important way of development in sports for excellence and career (Sports Science Division, Sports Authority of Thailand, 2013).With reference to the aforementioned plans, sport science center is the key-to-success organization to boost people to achieve good health and fitness, and develop sports for excellence and career. Its major missions are to offer exercise services, give physical fitness test to athletes and interested people, and do research on sports science. The athletes can use it to strengthen their physical fitness, prevent sports injuries, and rehabilitate themselves from the injuries. The people in general can use it to keep their and fitness, and solve their problems with health. The researcher is, therefore, interested in

constructing the management model of regional sport science center to satisfy the need of athletes and people in general for development.

Research Objectives

This research aims to construct the management model of regional sport science center.

Research Methodology

The mixed methodology, qualitative and quantitative researches including documentary reviewing, interviewing, surveying, and doing focus group, was used in this research.

Research Instrument

The theoretical concept of PRIMO-F containing People, Resources, Innovations and Ideas, Marketing, Operations and Finance, the interview form and the questionnaire for constructing the model, and the questionnaire for focus group to examine the model appropriateness and possibility were used as the instrument of this research.

Population and Samples

132 stakeholders in regional sports science from 17 vice deans of Sports and Health Science Faculty, Institute of Physical Education, 11 vice directors of Sports Schools in Sports Development Affair, 84 heads and staffs of Sport Science Center from Institute of Physical Education and Sports Schools, and 20 heads and staffs of Sports Science Affair from Sports Authority of Thailand, Ministry of Tourism and Sports.

Data Collection

Documentary reviewing and interviewing the stakeholders in regional sports science were used first to construct the questionnaire about the opinions of the administrators and the staff on management model of regional sport science center. Then, the data analysis of the interview and the survey results were used to construct the management model of regional sport science center. Finally, with the constructed questionnaire and the focus group method the model appropriateness and the possibility were examined by a panel of seven experts comprising Director of Physical Fitness Division, Sports Science Affair, Sports Authority of Thailand, Dean of Sports and Health Science Faculty, Institute of Physical Education, Vice Dean of Sports and Health Science Faculty, Institute of Physical Education, Head of Sports Science Center, Head of Sports Science Affair, an expert in sports science and an expert in sports management.

Data Analysis

The Index of Item Objective Congruence: IOC was used for the content analysis and found between 0.67 -1.00. The qualitative analysis was used for the interview data. The quantitative analysis was used for the survey and focus group data in terms of mean and standard deviation. As a whole, the reliability of the survey was found at 0.908 and as separated aspect it was found as the following: People = 0.928, Resources = 0.902, Innovations and Ideas = 0.899, Marketing = 0.887, Operations = 0.903 and Finance = 0.927.

Research Results

1. Results on the importance regarding the theoretical concept of PRIMO-F towards regional sport science center revealed that Marketing was found at a highest level ($\bar{x}$ = 3.62, S.D. = 0.44). Next were Resources ($\bar{x}$ = 3.61, S.D. = 0.44), People ($\bar{x}$ = 3.57, S.D. = 0.50), and Finance ($\bar{x}$ = 3.54, S.D. = 0.48) respectively. The aspects found at a high level were Innovations and Ideas ($\bar{x}$ = 3.46, S.D. = 0.53) and Operations ($\bar{x}$ = 3.20, S.D. = 0.37).

2. Results on constructing the management model of regional sport science center

2.1 People: this aspect is designed to set vision, missions, goals, objectives, administration structure, qualifications, human resource recruitment and personnel development: Plan (P), the center should review and create the management plan, vision, missions, goals, objectives, structure, qualification, and recruitment; Do (D), the center should implement in accordance with the management plan and build the monitoring system, key performance indicators, and system and mechanism of personnel administration; Check (C), the center should evaluate the working performance of the personnel and the center and, make the evaluation report; and Action (A), the center should monitor advancement, problems, treats, success and failure of working performance, and recruit the personnel in relation to the given qualifications and objectives.

2.2 Resources: this aspect is designed to provide sufficient tools, equipment, technologies in sports and exercise, and facilities for services: Plan (P), the center should specify its tools, equipment, technologies in sports and exercise, and facilities and make its utilization plan; Do (D), the center should provide tools, equipment, technologies in sports and exercise, and facilities, and build information technology system, manual and common practices for utilization; Check (C), the center should check the condition of and evaluate the utilization need for tools,

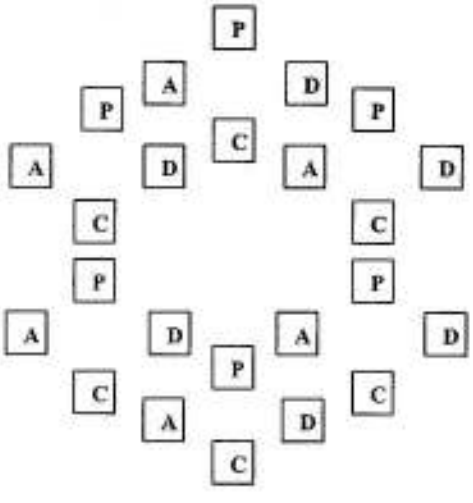
equipment, technologies in sports and exercise, and facilities.; and Action (A), the center should improve tools, equipment, technologies in sports and exercise, and facilities to meet the need and the necessity.

2.3 Innovations and Ideas: this aspect is designed to use information technology, innovations, software and applications in sports and exercise for working and offering services: Plan (P), the center should make the plan of using information technology, innovations, software and applications in sports and exercise for working and offering services, and enhance personnel to do research and create innovations; Do (D), the center should use information technology, innovations, software and applications in sports and exercise for working and offering services, and arrange the training for or send the personnel to be trained in order to develop their ability; Check (C), the center should check and evaluate the use of information technology, innovations, software and applications in sports and exercise for working and offering services including the construction of researches and innovations; and Action (A), the center should improve information technology, innovations, software and applications in sports and exercise.

2.4 Marketing: this aspect is designed to set the plan of public relations and marketing for the center in various ways including the service rates: Plan (P), the center should create the implementation plan of public relations and marketing for the center, and do brain storming about rates of service; Do (D), the center should implement according to the set plan, and declare the rates of service for yearly, monthly and each-time-use members; Check (C), the center should monitor and evaluate the implementation regarding the set plan, and do the survey on member's satisfaction with service; and Action (A), the center should improve the public relations and marketing to meet the member's satisfaction results.

2.5 Operations: this aspect is designed to settle the operational plan covering job specification and description, work instruction, communication system and networks: Plan (P), the center should settle the operational plan to achieve all its goals; Do (D), the center should implement according to the operational plan and build the monitoring system and key performance indicators of success ; Check (C), the center should evaluate the operations and clarify the necessity and the possibility of operational plan; and Action (A), the center should review problems, treats, successful works and disappointing results from the operations for improvement.

2.6 Finance: this aspect is designed to establish the financial and budget plan covering budget proposal, purchasing protocol, supply and property administration, finance and accounting system, report of cash of flow change or movement: Plan (P), the center should settle the financial and budget plan to achieve all its goals; Do (D), the center should implement according to the financial and budget plan and build the monitoring system and key performance indicators of success; Check (C), the center should evaluate the working performance in relation to the financial and budget plan, and make evaluation report; and Action (A), the center should review problems, treats, successful works and disappointing results for improvement.



As a result, the management model of regional sport science center is constructed and shown below:

3. Results on appropriateness and possibility of management model of regional sport science center revealed that the model appropriateness was found that Marketing was found at a highest level ($\bar{x}$ = 4.79, S.D. = 0.43). Next were Resources ($\bar{x}$ = 4.71, S.D. = 0.48), Operations ($\bar{x}$ = 4.69, S.D. = 0.48), People ($\bar{x}$ = 4.64, S.D. = 0.50), Innovations and Ideas ($\bar{x}$ = 4.63, S.D. = 0.51), and Finance ($\bar{x}$ = 4.61, S.D. = 0.50) respectively. The model possibility was found that People was found at a highest level ($\bar{x}$ = 4.52, S.D. = 0.53). The aspects found at a high level were Resources, Marketing, and Operations ($\bar{x}$ = 4.50, S.D. = 0.53), Finance ($\bar{x}$ = 4.49, S.D. = 0.53) and Innovations and Ideas ($\bar{x}$ = 4.42, S.D. = 0.53) respectively.

Conclusion and Discussion

The management model of regional sport science center in relation to PRIMO-F was constructed as the following PRIMO-F concept:

People: the regional sport science center should set policy, goals, missions, working performance evaluation properly for professional advancement. It should also promote administrator's leadership, create the personnel management plan regarding recruitment, wages and salary, fringe benefits, facility, reinforcement, guardianship, security, and arrange the meeting between administrators and staff to build working participation and achieve sense of belonging. These meet the study of Jowett and Poczwardowski (2007) saying that coaches are the most influential personnel for athletes to be successful. If the athletes are inspired and reinforced positively by coaches, they become confident to compete in any events and achieve their goals. So, developing coaches gradually can lead to sports for excellence.

Resources: the regional sport science center should provide sufficient and up-to-date tools, equipment, technologies and facilities to offer services. The center should be located in the route of convenient transportation and provide enough parking lots for the users. These meet the study of Ratchanee Khwanboonchan (2008) indicating that one of the factors to develop sports for excellence is place and facility management for services such as lockers, bathrooms, relaxing areas, information technology, materials, technologies for health and physical fitness, health promotion room, steamed and sauna room, cardiovascular room, etc. help sports development. These meet the study of Thiti Chansiritorn (2013) saying that due to insufficient budgets for supporting facilities and prizes the athletes felt unsatisfied with training to develop their ability.

Innovations and Ideas: the regional sport science center should arrange the training for personnel or send personnel to be trained for development in working performance and doing research about sports for excellence and exercise for health. Also, the center should use information technology, innovations, software and applications in sports and exercise for working and offering services including setting the utilization evaluation system via Internet and creating researches and innovations for working performance and system improvement.

Marketing: the regional sport science center should design the service fees properly in relation to places, tools, equipment and facilities for the yearly, monthly and each-time use members. Various payment channels should be provided for service users; furthermore, various ways of communication and public relations such as periodicals, radio, Internet, websites, billboards, social media should be created for customers. Specialists and exercise programs serving the objectives and the need of customers should be also prepared. The administrator's and the staff's knowledge in marketing and public relations should be developed. These

meet Ketsanee Chaichan (2008)'s study revealing that product factor consists of quality, sufficient and safe exercise equipment and facilities; price factor comprises special discount for customers who expand their membership or apply for in form of groups and new members; place factor contains officer's proper attire and politeness, clean areas, toilets and bathrooms, and musical seasoning service; promotion factor includes promotional coupons, giveaways such as travelling suitcases for new members, leaflets and brochures.

Operations: the regional sport science center should use up-to-date and sufficient technologies to operate the center and offer services, do public relations and publication of beneficial information, set the clear work procedures and time, build the network with private and public sectors, create researches and innovations to produce new knowledge for development. These meet the study of Ratchanee Khwanboonchan (2008) saying that one of the key factors to the success of sports for excellence is to prepare the responsible organizations to link working system in order to develop sports for excellence and exercise for health.

Finance: the regional sport science center should receive the sufficient budgets covering the necessity of working performance and the need of users. It should provide accounting information to anticipate income and expenses of the center, financial plan, financial and budget evaluation, budget proposal and purchasing, administration of supply and property, declaration of sources and utilization of cash of flows to show financial liquidity and status, the regulations regarding finance and accounting. Financial plan, utilization, control and audit should be conducted to serve the system of the center. Financial support or fringe benefit plan for personnel should be well operated. Report on cash of flows along with its change or movement should be made for improvement. Also, the center should provide the officers in charge of finance and budget. These meet the study of De Bosscher (2006) indicating that one important element from the model of sports development policy leading to the success in international evens is budget support.

Recommendations

Effects from the use of management model of regional sport science center should be investigated.

References

De Bosscher, V., De Knop, P., van Bottenburg, M,& Shibli, S. 2006. A conceptual framework for analyzing sports policy factors leading to international sporting success. European Sport Management Quarterly, 6(2), 185-215.

Jowett, Sophia and Poczwardowski, Artur, 2007. Understanding the Coach-Athlete Relationship. from Jowett, Sophia and Lavallee, David, Social psychology in Sport. pp.3-14, Champaign, Ill.: Human Kinetics.

Ketsanee Chaichan. 2008. Service Marketing Mix Factors Affecting Fitness Center Selection of Customers in Maung District, Chiangmai Province. Master's Thesis of Business Administration, Faculty of Business Administration, Chiangmai University.

Ministry of Tourism and Sports. 2012. Strategic Plan of Ministry of Tourism and Sports (2555B.E. – 2559B.E.). Bangkok: Agricultural Cooperatives Club of Thailand.

2012. National Sports Development Plan, Volume 5 (2555B.E. – 2559B.E.). Bangkok: Teacher Council's Business Organization.

2560. National Sports Development Plan, Volume 6 (2560B.E. – 2564B.E.). Bangkok: Teacher Council's Business Organization.

Morris, Michaels. 1995. Market oriented pricing. Illinois: NTC Group.

Ratchanee Khwanboonchan. 2008. Strategic Plan of Development in Sports for Career (2549B.E. – 2552B.E.). Bangkok: School of Sports Science, Chulalongkorn University.

Sports Science Division, Sports Authority of Thailand. 2013. Common Practices for Sports Science Affair. Bangkok: Sports Authority of Thailand (mimeographed).

Thiti Chansirintorn. 2012. Guidelines for Management Development of National Sports Development Project. Master's Thesis of Sports Science. Bangkok: Graduate School, Chulalongkorn University.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp77-81
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Perception Of Physical Educationists Towards Sports Development Schemes Of UGC, New Delhi- India

Thakur Rahul,
Head, Department of Physical Education & Sports,
Sarvajanik Arts and Commerce College, Visarwadi
District- Nandurbar, Maharashtra-INDIA
Email- drrahulthakur1980@gmail.com

Abstract :
The ultimate aims of University Grants Commission, New Delhi (India) is to provide healthy platform for development of sports and fitness attitude in youth of the Country. In 12th five year plan (2012-2017), the UGC modified the previous sports infrastructure development Scheme and decided to operate new scheme in three stages. So, to find out the effectiveness, durability and awareness of this new grass root approach; the researcher employed an attitude scale based on 'Likert' five point scale on 200 Physical Educationists (DPEs) which were selected randomly from Northern India and Western India. Thus the sample comprised of (Northern India=100 Director of Physical Education) 25 DPEs from each state i.e. Himachal, Haryana, Punjab & Uttar Pradesh and (Western India=100 Director of Physical Education) 25 DPEs each from Madhya Pradesh, Gujarat, Rajasthan &Maharashtra. The statistical techniques like percentage, mean and t-test have been used to analyse the data. The findings suggest that Physical Educationist of both regions i.e. northern and western India showed highly favorable attitude and awareness towards UGC 12th Plan Sports Infrastructure and Equipment Development Scheme. The DPEs of Northern region were found slightly more aware in respect to UGC 12th plan sports promotional Schemes than Western counterparts. The Physical Educationists also acknowledged that the UGC XII plan scheme for development of sports infrastructure and equipment in universities and colleges is comparatively much better than the previous sports promotional schemes of the UGC.**Key words** : UGC XII plan Scheme, Sports Development, Sports Facility, University,College, Physical Educationists – DPEs, Attitude,

Introduction :

Since Independence, 'The All India Inter-university Sports Board' to have a liaison with the Dept. of Youth Affairs & Sports, Government of India and other national level agencies like Sports Authority of India for the promotion and development of sports in the university and college sector. The Govt. of India revised the assistance pattern for development of sports infrastructure in universities and colleges in 1987 and decided that it should be administered through University Grants Commission (UGC), New Delhi. In this regards, the UGC constituted an 'expert committee' under the convenor ship of **Prof. G. Padambhaan** and this committee not only suggested the guidelines for the development of sports infrastructure in universities and colleges but they also highlighted many other important aspects such as introduction of separate Physical Education Curriculum at UG and PG level and interdisciplinary approach etc.In 1992, The UGC started to provide financial assistance to institutions for running physical education course and also invited the proposal from universities to strengthening the 'Adventure Sports' activities in campus. So, we can say that 'Sports Sector' is considered for funding during UGC VII plan, but officially become operative in UGC VIII Plan (1992-1997). The sport infrastructure scheme has been reviewed in every plan to make it more effective and systemized. So, the structure of this scheme is varied in UGC IX plan (1997-2002), X Plan (2002-2007) and XI Plan (2007-2012).

Keeping in view the past developments, experiences and objectives of the scheme; the assistance pattern of Sports Infrastructure Development Scheme has been restructured and designed in three stages in UGC XII Plan. Similarly, the researcher already have evaluated the relevance of previous sports promotion scheme of UGC in tribal areas and **(Thakur Rahul, 2015)** found that most of the colleges located in tribal areas of Nandurbar-Dhule districts are not covered under Section 2(f) &12(B) of UGC Act, 1956, so they are ineligible to receive any financial assistance from UGC. Apart this, very few renowned urban area colleges of Nadurbar-Dhule region have availed assistance under sports development scheme during XI plan. He also concluded that UGC sponsored sports promotional schemes are not implemented in uniform manner in tribal areas of Nandurbar and Dhule district of Maharashtra. The researcher also conveyed some suggestions to UGC, New Delhi for the betterment of this sports promotion scheme

.

The aims and objectives of UGC sports development scheme is to enhance a capacity building in colleges and universities for promotion of sports with an idea that broad base of the sporting pyramid would ultimately produce enough sports persons to participate in elite sports. Since, after three years of launch of UGC XII plan (2012-2017), there are many questions aroused in the mind of researchers like; is this scheme is working effectively for development of sports? what about the grassroots approach? views of the stakeholders towards this scheme etc. So to find out the answers, the researcher obtained zone wise list for sampling purpose from AIU, New Delhi 'Inter-university Sports Board' for grouping the different state into various zones i.e. north, south, east and west zone. The researcher randomly selected total 200 Physical Educationists (Director of Physical Education) from different universities/intuitions of Northern and Western India. Thus, the sample comprised of (Northern India=100) 25 DPEs from each state i.e. Himachal, Punjab, Uttrakhand & Uttar Pradesh and (Western India=100) 25 each from Madhya Pradesh, Gujarat, Rajasthan & Maharashtra. The data was collected by administering an Attitude Scale based on 'Likert' five point scale which had two parts viz. Part-A and Part –B. The basic information and simple questions on relevance of different stages & component and funding pattern had been asked in Part A, while in Part B- only opinion based statements have been included. The main objectives of the study is to find out :

General awareness among Physical Educationists of Northern and Western India towards UGC XII Plan- Scheme for Development of Sports Infrastructure & Equipments in Universities and Intuitions.
Attitude of the Physical Educationists towards 'UGC 12th Plan Scheme for Development of Sports Infrastructure & Equipments.
Whether is there any significant difference in attitude of Northern and Western India Physical Educationists towards UGC XII Plan Scheme for Development of Sports Infrastructure & Equipments'

Data Collection

The data was collected during personal visits in Himachal, Uttrakhand, Uttar Pradesh, Gujarat, Maharashtra, Madhya Pradesh and also collected on the occasion of organisation of various Inter-university sports competitions at All India and Zone level in P.U. Chandigarh, G.N.D.U., Amritsar, RGPV, Bhopal . The data was analysed and interpreted with help of statistical techniques like Mean, SD & t- test. The analysis has been also made on suggestions and views of the respondents about newly introduced UGC XII plan sports development scheme as shown in table No.-1.

Table -1 : Showing the Stage Wise Eligibility and Structure of XII Plan Scheme for Development of Sports Infrastructure in Universities and Institution :

STAGE I : Composite Football/Cricket Playfield with pitch - Standard Size (An Institution/university can not apply more than two components in this stage)		
Comp-onent	**Type**	**Ceiling of Assistance in RS.**
I	**Composite Football/Cricket Playfield with pitch - Standard Size Track**	
	Without running track 06 lanes grass running track 08 lanes grass running track	5,00,000/- 6,00,000/- 7,00,000/-
II	**Playfield Type**	
	Standard size Hockey grass field without running track. Standard size Concrete Basketball court with upright post and synthetic back boards Cricket pitch for Training Flood Lighting of Volleyball and Basketball courts.	3,60,000/- 5,00,000/- 60,000/- 4,00,000/-
III.	**Tennis Courts – Standard Size**	
	Concrete Morrum	3,50,000 3,00,000
STAGE II - Eligibility : applicable after substantial development of Stage I (An Institution/university may apply for 2 items from both components in this stage)		
I	**Indoor Sports Training Facility with Wooden Flooring (Tongue and Groove)**	
	Size not less than 36x24x12.5 Mtrs Size not less than 30x18x12.5 Mtrs Size not less than 20x12x7 Mtrs	70,00,000 65,00,000 60,00,000
II	**Type of training facility**	
	Outdoor Stadium-Field size not less than 105 X 70 Mts. Outdoor stadium with field size not less than 170x100 (Mtrs with 8 lane grass running track) 8 lane swimming pool with dimensions 25x21x1.80Mtrs. Indoor Shooting Range 30x20x4 Mtrs. 50 Bedded Sports Hostel Multipurpose Gymnasium	50,00,000 60,00,000 1,25,00,000 90,00,000 75,00,000 1,00,00,000
STAGE III.- eligibility : applicable after substantial development of Stage II (An Institution/university can not apply more than one components in this stage)		
I	8 Lane Swimming Pool 50x21x1.80 Mtrs.	2,25,00,000
II	100 Bedded Sports Hostel	1,50,00,000
III	Fitness Centre with Sports Sciences Back up	2,40,00,000

The respondents of both northern and western regions of India in majority, respectively 62% northern and 52% western have good knowledge about the UGC XII plan scheme for development of Sports infrastructure. The Physical Educationists of North India were found slightly more aware than Physical educationist of west in respect to UGC XII plan sports scheme. Near about 35% DPEs of both regions belongs to rural and tribal areas have no knowledge about this newly introduced UGC scheme.

Table No.-2 : Showing the Limit of Financial Assistance fixed for Every Stage:

Stages	Maximum Ceiling in Lac	Additional Equipment Grant in Lac	Total in Lac
Stage-I	12 .00	10.00	22.00
Stage-II	195.00	10.00	205.00
Stage-III	240.00	10.00	250.00
Total	447.00	30.00	487.00

The table no.-2 clearly shows that in new sports scheme more emphasis has been given to develop the common traditional sports facilities first and then think about the modern sports. Thus the scheme is well organised and also have the systematized approach. But, the DPEs of Himachal Pradesh and Uttrakhand were found dissatisfied with the eligibility criteria i.e. compulsion of fulfilment of Stage –I, as they state that it is impossible to create or maintain playground facilities in hill areas within stipulated limit of Rs. 12 Lac. So, UGC should constitute a separate committee to raise the financial ceiling in hilly and remote areas. Similarly, DPEs working in tribal and remote areas of Madhya Pradesh and Maharashtra also expressed same views & thoughts.

Table No.-3 : Showing the region wise comparison of attitude of Physical Educationists towards UGC XII plan sports infrastructure scheme.

Physical Educationists	N	Mean	Percentage		S.D	t-ratio
			Above mean	Below mean		
Northern India	100	70.4	62%	38%	41.61	**0.771@**
Western India	100	66.7	55%	45%	23.83	

df = 198 @ Not significant at 0.05 level of significance

The above table clearly shows that physical educationists of both regions in majority have showed favourable attitude towards XII plan sports infrastructure development Scheme of UGC, New Delhi. The table also shows that Physical Educationists of Northern India (62%) were found slightly more favourable and aware than Western counterparts (55%) in respect to their attitude towards this newly introduced sports scheme. The rate of unfavourable responses is 45% in western region and 38% in Northern region which shows that something is going wrong with DPEs of both regions. The researcher found that hilly and tribal area DPEs of both regions have showed negative views towards this newly introduced sports development scheme of UGC, New Delhi. The DPEs of western region accepted that they are less aware about this newly introduced scheme, because their college administration can't involve them in college development process; some senior teachers and principal very secretly manage such sports development projects and packages at their own level. So, this may be the main reason behind the unawareness about sports development scheme among DPEs of western region which causes irrelevant sports developments and mismanagement. The ignorance, degradation and inferior attitude towards DPEs is found more in rural and small colleges.

The UGC should take special initiatives to ensure the active involvement of the DPEs in such sports promotional schemes for the sustainable development of sports infrastructure and facilities.

However, the funding pattern & ceiling limits have been highly appreciated by the DPEs of both regions in majority. The region wise comparison in this regards also done through 't'-test which explore no significant difference in attitude of DPEs of Northern and Western India towards UGC XII Plan Scheme for development of sports infrastructure and equipments in universities and colleges, as the calculated 't' value 0.771 is found insignificant at 0.05 level of significance. Thus, it can be said that Physical Educationists of Northern and Western India almost have similar attitude towards UGC XII plan scheme for development of Sports infrastructure and equipments in university and colleges.

Conclusion :

The overall findings lead to conclusion that Physical Educationists of Northern and Western India are well aware about the UGC XII Plan 'Scheme for Development of Sports Infrastructure & equipments in university & colleges' and showed favorable attitude towards the scheme and also appreciated the funding pattern of UGC, New Delhi. The DPEs also acknowledged that this scheme is well structured, organized and have systematic approach for the sustainable growth and development of physical education and sports facilities in university/institution system. However, in case of hilly, tribal and remote areas, the eligibility conditions of this scheme should be reviewed with more funding.

References :

Chadha G. K. (2008) Higher Education in India -Issues Related to Expansion, Inclusiveness, Quality and Finance University, (New Delhi : Secretary, University Grants Commission, Bahadur Shah Zafar Marg)

Dept. of Sports (2011)) Govt. of India 'National Sports Development Code of India -2011', (New Delhi: Ministry of Youth Affairs & Sports)

Thakur Rahul (2015), Evaluation of UGC Schemes For Development of Sports Infrastructure And Equipment in Tribal Area Colleges of NMU Jalgaon, Academic Sports Scholar, ISSN : 2277-3665 Volume-4 , Issue-4 , April-2015. www.lsrj.in.

Sharma Kavita (2013), Sixty years of the University Grants Commission :establishment, growth, and evolution The New Policy Initiatives (1983-1993), (New Delhi : Divya media Art)

Sports Encyclopaedia. (1999). In *The Encyclopaedia Americana International , Edition*. (Vol. 25,Skin-Sumac, p.530). USA: Grolier Inc

Sports and Games. (1997). In *The New Encyclopaedia Britannica* (Vol. 11, p.112). 15th Edition. Chicago: Encyclopaedia Britannica

http//www.ugc.ac.in Guidelines for Development of Sports Infrastructure & Equipment in Universities & Colleges During UGC XII Plan (2012-2017).

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp82-84
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Adaptations Of Physiological State After 5- Over Bowling Spell In Cricket: A Pilot Study

Sk. Mimu
Research ScholarVisva-Bharati
Email Id. mimuseikh12@gmail.com
Dr. Abhijit Thander
Assistant Professor of Physical Education, Visva-Bharati
Email Id. abhijit.thander@visva-bharati.ac.in

Abstract
The purpose of the study was to examine the alterations of core body temperature (CBT) and heart rate (HR) during 5 over bowling spells. In the present study Fifteen (15) varsity male cricket players were selected from Visva-Bharati aged 18-25 years. Data on selected physiological parameters i.e. heart rate (HR) and core body temperature (CBT) were obtained by using standard instruments and measuring procedures once after each over (6 balls) of bowling for 5 times. Descriptive statistics was used in this study. The result shows that the environmental temperature of the spell was 20° C. The Mean heart rate after 1st over and 5th over were 140 and 150 bpm respectively. An increase in heart rate of 10 bpm was found after 1st and 5th over of bowling. Core body temperature (CBT) was observed after the 1st over and 5th over were 97.68° F and 97.73°F, respectively. A rise in core temper ature(CBT) of 0.46°F were observed from first over to post fifth over spell. It may be concluded that long spell like five overs in wintry conditions of West Bengal, the thermoregulatory strain of pace bowling were found mild and the alterations of cardiovascular and thermal duress remains sustained in mild environmental temperatures.
Keywords: - Core Body Temperature, Heart Rate, Bowling spell, Cricket

Introduction

Pace bowling performance effect significant strain on all physiological systems (Burnett, Eiliot & Marshall, 1995; Duffield, Carney & Karppinen, 2009). When performed in wintry conditions, this physiological load may be augmented as adeptness of cold transfer to the surrounding environment is reduced. Accordingly, high environmental wintry temperatures may be problematic for optimal physical performance. This is certainly apparent for fast bowling, where the intensities of bowling have been suggested to be high and tentatively linked to performance (Noakes & Durandt, 2000; Devlin, Fraser, arras, Hawley, 2001). However to date, there is a lack of research outlining the acute physiological responses to fast-bowling, and bowling performance (Bartlett, 2003). Previously published research on physiological responses to fast-bowling is minimal; however, Burnett, Elliott, and Marshall (1995), Stretch and Lambert (1999) and Devlin et al. (2001) have reported heart rate responses to simulated 12 and 6 over spells, respectively. Collectively, these studies indicate heart rate responses in the range of 75–85% of maximal heart rate (155–175 beats min). However, few of these studies report the association between these physiological measures and performance. As a result of the small collection of studies reporting physiological and performance changes within repeated spells of fast bowling, the aim of this study was to quantify changes in physiological responses namely core body temperature and heart rate after 5- over bowling in cricket.

Methodology

Sample:Fifteen male medium pace bowlers (mean age 21.26±1.43 years) from the Visva-Bharati University were recruited for this study. At the time of testing all the subjects were bowled without being restricted by injury and all were "match fit"

Pre-Testing;Subjects standing heights and weights were measured by using a stadiometer and a weighing machine. Heart rate (HR) and Core body temperature (CBT) was taken prior of the test.
Experimental ProtocolTo ensure the experimental protocol simulated real match conditions, (i.e. where two bowlers alternately bowls their six-ball over). After a standardized warm-up, each

subject bowled 5 (six-ball) over to a batsman in a net. The spell was not unusual at any level of performance.

Data CollectionPrior to commencement of 1st over and immediately after the completion of each 1st, 2nd, 3rd, 4th and 5th over's the heart rate (HR) and core body temperature (CBT) were recorded by using Stethoscope and thermometer respectively.

Data analysisThe basic statistical parameters were calculated for all the data: the mean and standard deviation to find out changes in core body temperature and heart rate after 5- over bowling in cricket.

Results

Mean and SD of the physical characteristics of the cricket players were tabulated and presented in the Table-1.

Table 1:Descriptive statistical parameters of male Inter Univ. Level Cricket players N=15

	Height (mt)	Weight (kg)	BMI (kg/mt^2)
Mean ±SD	1.71±0.06	64.53± 4.67	22.01±1.58
Standard Error	0.016	1.207	0.409
Minimum	1.64	56	19.15
Maximum	1.84	74	24.74

Table: 2:The descriptive statistics of the core body temperature and Heart rate of male Inter University Level Cricket players are given below.

Parameters	1st Over Mean±SD	2nd Over Mean±SD	3rd Over Mean±SD	4th Over Mean±SD	5th Over Mean±SD
Core body Temperature	97.50±1.02	97.71±0.75	97.68±0.85	97.73±0.71	97.96±0.84
Heart Rate	140±22.11	145±20.71	148±16.56	150±15.93	150±16.1

The above table shows that the mean core body temperature of the pace bowlers from 1st over to 5th over were 97.50 F; 97.71 F;97.68F; 97.73 F; 97.96 F respectively. And the Heart rate ranges from the first over to fifth over was 140 BPM; 145 BPM; 148 BPM; 150 BPM; and 150 BPM respectively.

Discussion

An environmental temperature of the 5 over spell was 68° F. The Mean heart rate after 1st over and 5th over were 140 and 150 bpm respectively. An increase in heart rate of 10 bpm was found after 1st and 4th over of bowling where the 5th over shown a same heartbeat as observed after 4th over. Similarly core temperature was observed after the 1st over and 5th over were 97.68° F and 97.73° F, respectively. A rise in core temperature of 0.46° F were observed from first over to post fifth over spell whereas only after 3 over the core body temperature was observed 97.68 which indicate a fall in core temperature of 0.03 F. However, most of this change represented the change following the first over in each spell.The heart rate responses in the current study are similar to previously reported data (Rob Duffield, Mitchell Carney & Stuart Karppinen, 2009; Burnett et al., 1995; Devlin et al., 2001), who point out the sporadic nature of heart rate increases. To date, limited literature is available on core temperature responses to simulated or actual match play in cricket; however in a study of Noakes and Durandt (2000) explained the risk of long spells in hot conditions, and suggest the thermoregulatory strain of bowling would be mild.

Supporting this view, the mean core temperature in the current study peaked below 97.96 F, indicating that overall there was moderate but sustained cardiovascular and thermal duress for 05 overs of pace bowling spell in mild environmental temperatures.

Conclusion:

It may be concluded that long spell like five overs in wintry conditions of West Bengal, the thermoregulatory strain of pace bowling were found mild and the alterations of cardiovascular and thermal duress remains sustained in mild environmental temperatures.

References:

Bangsbo, J., Iaia, F. M., & Krustrup, P. (2007). Metabolic response and fatigue in soccer. International Journal of Sports Performance and Physiology, 2, 111–127.

Bartlett, R. M. (2003). The science and medicine of cricket: An overview and update. Journal of Sports Sciences, 21, 733–752.

Bellock, S., Bertenthal, B., McCoy, A., & Carr, T. (2002). When haste doesn't make waste: Expertise, an exception to the speedaccuracy trade off. Journal of Sport and Exercise Physiology, 24, S30–S31.

Booth, J., Marino, F., & Ward, J. J. (1997). Improved running performance in hot humid conditions following whole body precooling. Medicine & Science in Sports & Exercise, 29(7), 943-949.

Coutts, A. J., Reaburn, P. R. J., & Abt, G. A. (2003). Heart rate, blood lactate concentrations, and estimated energy expenditure in a semi-professional rugby league team during match play: A case study. Journal of Sports Sciences, 21, 97–103.

Dawson, B., Hopkinson, R., Appleby, B., Stewart, G., & Roberts, C. (2004). Comparison of training activities and game demands in the Australian football league. Journal of Science and Medicine in Sport, 7, 292–301.

Devlin, L., Fraser, S., Barras, N., & Hawley, J. A. (2001). Moderate levels of hypohydration impairs bowling accuracy but not velocity in skilled cricket players. Journal of Science and Medicine in Sport, 4, 179–187.

Duffield, R., Carney, M., & Karppinen, S. (2009). Physiological responses and bowling performance during repeated spells of medium-fast bowling. Journal of Sports Sciences, 27(1), 27- 35.

Duffield, R., Dawson, B., & Goodman, C. (2005). Energy system contribution to 400-metre and 800-metre track running. Journal of Sports Sciences, 23, 299–307.

Duffield, R., Green, R., Castle, P., & Maxwell, N. (2010). Precooling can prevent the reduction of self-paced exercise intensity in the heat. Medicine & Science in Sports & Exercise, 42(3), 577-584.

Ferrauti, A., Bergeron, M. F., Pluim, B. M., & Weber, K. (2001). Physiological responses in tennis and running with similar oxygen uptake. European Journal of Applied Physiology, 85, 27–33.

Girard, O., Lattier, G., Maffiuletti, N. A., Micallef, J. P., & Millet, G. P. (In press). Neuromuscular fatigue during a prolonged intermittent exercise: Application to tennis. Journal of Electromyography and Kinesiology.

Glazier, P. S., Paradisis, G. P., & Cooper, S. M. (2000). Anthropometric and kinematic influences on release speed in men's fast-medium bowling. Journal of Sports Sciences, 18, 1013–1021.

Gore, C. J., Bourden, P. C., Woolford, S. M., & Pederson, D. G. (1993). Involuntary dehydration during cricket. International Journal of Sports Medicine, 14, 387–395.

Homery, D. J., Farrow, D., Mujika, I., & Young, W. (2007). Fatigue in tennis: Mechanisms of fatigue and effect on performance. Sports Medicine, 37(3), 199-212.

Loram, L. C., Mckinon, W., Wormgoor, S., Rogers, G. G., Nowak, I., & Harden, L. M. (2005). Determinants of ball release speed in schoolboy fast-medium bowlers in cricket. Journal of Sports Medicine and Physical Fitness, 45, 483–490.

Marino, F. E. (2002). Methods, advantages, and limitations of body cooling for exercise performance. British Journal of Sports Medicine, 36, 89-94.

Millet, G. Y., & Lepers, R. (2004). Alterations of neuromuscular function after prolonged running, cycling and skiing exercise. Sports Medicine, 34, 105–116.

Noakes, T. D., & Durandt, J. J. (2000). Physiological requirements of cricket. Journal of Sports Sciences, 18, 919–929.

Portus, M. R., Sinclair, P. J., Burke, S. T., Moore, D. J. A., & Farhart, P. J. (2000). Cricket fast bowling performance and technique and the influence of selected physical factors during an 8-over spell. Journal of Sports Sciences, 18, 999–1011. performance in warm conditions. Journal of Sports Sciences, 26(14), 1477-1487.

Portus, M. R., Mason, B. R., Elliott, B. C., Pfitzner, M. C., & Done, R. P. (2004). Technique factors related to ball release speed and trunk injuries in high performance cricket fast bowlers. Sports Biomechanics, 3, 263–283.

Quod, M. J., Martin, D. T., & Laursen, P. B. (2006). Cooling athletes before competition in the heat: Comparison of techniques and practical considerations. Sports Medicine, 36(8), 671-682.

Rampinini, E., Coutts, A. J., Castagna, C., Sassi1, R., & Impellizzeri, F. M. (2007). Variation in top level soccer matches performance. International Journal of Sports Medicine, 28, 1018– 1024.

Spencer, M., Bishop, D., Dawson, B., & Goodman, C. (2005). Physiological and metabolic responses of repeated-sprint activities: Specific to field-based team sports. Sports Medicine, 35, 1025–1044.

Stretch, R. A., & Lambert, M. I. (1999). Heart rate responses of young cricket fast bowlers while bowling a six-over spell. South African Journal of Sports Medicine, 6, 15–19.

Acknowledgments

This study would not have been carried out without the Dedication and enthusiastic participations of the cricketers. The authors would like to thank Prof. Samiran Mondal, HOD, Physical Education for generously providing necessary facilities to carry out this research. I am also grateful to Dr. Abhijit Thander (Supervisor), from the Discipline of Exercise and Sports Physiology, for his advice regarding the physiological state after 5- over bowling spell and relevant research.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp85-86
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Psychological Variable Among Women athletes At Inter Collegiate Level Of Competition In Hyderabad

Dr.Mrs. G. Vimala Reddy
Head, Department Of Physical Education
St. Ann's College For Women,Mehdipatnam, Hyderabad

Introduction:
Prior to the Nineties, athletes failed to have the needed information or foundation based on which, they could put up a superior athletic performance. In 1897, Norman Triplett, an Indiana psychologist, began to explore why athletes performed the way they did in specific situations. These initial studies resulted in the growth and development of the contemporary games psychology industry.
Aggression:In psychology, the term aggression refers to a range of behaviors that can result in both physical and psychological harm to oneself, others or objects in the environment. The expression of aggression can occur in a number of ways, including verbally, mentally and physically.
Aggression in games:In the first half of the 20th century, many psychologists assumed that participation in games might allow individuals to vent their aggressive tendencies. Generally, these assumptions arose from the view that aggression is an internal drive based on frustration and/or instinct.

Methodology:
Sample of the Study
A sample of 100 women athletes who participated in team games and individual games at inter college level were considered from satisfied random sample techniques.The sample considered was divided into equal groups called as team games and individual games, each level consist of 50 each.

LEVEL	Team Game	Individual Game	Total
Inter Collegiate Level	50	50	100

Tools Used The researcher has not considered readymade tools to measure the aggression level of the individual and team games at inter collegiate level of competition. Hence the researcher had made an attempt to construct and standardize a fresh tool to measure the aggression levels among the women athletes.

Results and Discussion.

Results and Discussions showing the Inter Collegiate Team Game:

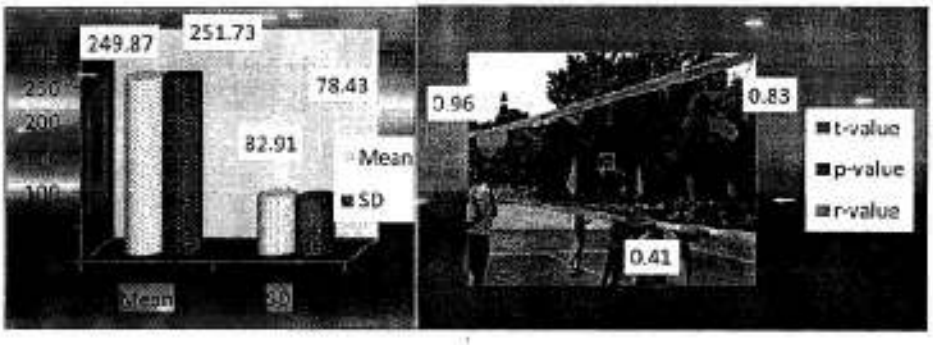
At Inter Collegiate level team game, the variable aggression has lesser mean of 251.73 (S.D= 78.43). The p=values of all the variables of inter collegiate level team game presented in the table are found to be significant.

Results and Discussions showing the Inter Collegiate Individual Game

At Inter Collegiate level individual game, the variable aggression has lesser mean of 249.87 (S.D=82.92). The p-values of all the segments of Inter Collegiate level individual game presented in the table are found significant at 0.01.

"There may not be any significant difference between Inter collegiate Individual Game and Inter collegiate Team Game in relation to their Aggression" is presented.Showing the Mean, SD, 't' value and p-value of Aggression.

Sl.No	Subjects	N	Mean	SD	T value	P-value
1.	**Inter college Individual Game (ICT – IG)**	100	249.87	82.91	0.83	0.41
2.	**Inter college Team games (ICT- TG)**	100	251.73	78.43		



Recommendations

Similar studies may be conducted on large scale, other psychological variables, and different age groups, background of different communities, men athletes and international players.

Reference:

Dr.D.P Bhadana and Dr. D.P Sharma (2009), Psychological Variables in Sports, Ritu Publications p.180. Daryl Siedentop (1994), Introduction to Physical Education Fitness and Sport, Mayfield Publishing Company p.389.

N.K Sharma (2011), Psychology of Coaching, Educational Publishers & Distributors, p. 264.

T.K. Narasimham (2009), developing Mental Fitness in Sports, Crescent Publishing Corporation, p.293.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp87-90
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Management Model Of Thailand Institute Of Sports Science

Poonyavee Chooumnaj, Somchai Prasertsiripan, Ph.D., Supitr Samahito, Ph.D.
Faculty of Sports Science, Kasetsart University, Thailand
baby_b1005@hotmail.com

Abstract
The purposes of this research were to study the basic information about management of Thailand Institute of Sports Science, and to create a management model for Thailand Institute of Sports Science. The 319 research samples consisted of executives from Ministry of Tourism and Sports, Sports Authority of Thailand, and Department of Physical Education; committee from National Olympic of Thailand under the Royal Patronage of His Majesty the King, Sports Association of Thailand, and Provincial Sports Association; sports science personnel from Sports Authority of Thailand, and Department of Physical Education; and sports science experts. The findings revealed that the management model of Thailand Institute of Sports Science comprised POSDC processes: 1) Planning 2) Organization 3) Staffing 4) Directing and 5) Controlling (Harold D. Koontz, 1972). Each process comprised four aspects: 1) Plan 2) Do 3) Check and 4) Act (W. Edwards Deming, 1993). The overall suitability or practical feasibility was found at a highest level, ($\bar{x}$ = 4.63, SD = 0.48). The overall possibilities was found at a high level, ($\bar{x}$ = 4.37, SD = 0.48). Keywords: Management, Thailand Institute of Sports Science, Model

Introduction
It may be said that the occurrence of sports science in Thailand results from the establishment of Sports Science Center, Sports Authority of Thailand on 1 April, 1966. The sports science center has continuously implemented all fields in sports science to enhance physical fitness, mental fitness, competition skills and techniques of national athletes, disabled athletes and sports people in accordance with sports associations. It has tried to make a link with any sports science organizations in the country and in overseas. It has been also offering services of checking, treatment and rehabilitation of athletic injuries and illness in the form of affiliated programs with medical institutes in central and regional areas, and organizations involving doping control. Its headquarter is nowadays situated in the area of Huamak Sports Authority of Thailand, which is considered one of the centers with the most modern and effective sports science equipment in Thailand. However, there have been limitations of sports science application due to national sports development plan indicating that sports science has to be emphasized on sports for excellence and sports for career. Therefore, using sports science to develop sports in the country should begin with youths, and ordinary people in all areas; in other word, sports science should be applied for all.

At present it is seen that a variety of sports science centers has been settled up under many related organizations, for example, Bureau of Sports Science, Office of Sports and Recreation Development, Ministry of Sports and Tourism, the sports science centers of which are set up to be in charge of arranging the activities and services in aspects of physical fitness, sports medicine, health science, sports technology, and sports research and development, with the focus on fundamental sports and sports for all (Bureau of Sports Science, Office of Sports and Recreation Development, Ministry of Sports and Tourism, 2003).

With reference to Sports National Development Plan No.5 (BE2555-BE2559), Sports National Development Plan No.6 (BE2560-BE2564) and Strategic Plan of Ministry of Sports and Tourism (BE2555-BE2559), sports science and technology are taken into consideration of and supported by all participating organizations as a tool of national sports development.
Moreover, sports science organizations are widely founded in the national, regional, provincial and district-network levels. Undoubtedly sports science organizations should be formed in both central and regional areas and should be equally conducted in terms of organizational structure, working strategies, good governance, and management consistency of work patterns in every segment. This causes sustainable sports development in Thailand's athletes and efficiency in

sports training, which brings about the benefits in all areas and meets the development direction of sports national development plan, the ministry strategic plan and the bulletin of the cabinets to the parliament. Consequently, the researcher would like to study and propose the ways to establish Thailand Institute of Sports Science for heightening the standard of Thailand's sports to meet the international standard.

Research objectives

1) To study the basic information about management of Thailand Institute of Sports Science in the aspects of organizational structure, major missions, and sports science needs of Thailand Institute of Sports Science.

2) To create a management model for Thailand Institute of Sports Science.

Research Methodology

Documentary review on organizational structure, key organizational missions for Thailand Institute of Sports Science, concepts and theories related to national institute of sports science, POSDC process: planning, organizing, staffing, directing, and controlling, and in-depth interviews to define a framework for creating variables of management elements for Thailand Institute of Sports Science were used as the first methods of this research. The management data was then collected by using questionnaire to create a management model of Thailand Institute of Sports Science. Last, the assessment on suitability or practical feasibility and possibility from focus group meetings collecting additional comments and suggestions was conducted.

Research Instrument

Instruments used in this research were rating scale close ended questionnaires divided into five aspects: planning, organizing, staffing, directing and controlling (Harold D. Koontz, 1972). The Index of Item Objective Congruence (IOC) (Rovinelli and Hambliton, 1977) and the questionnaire reliability using α -coefficient as statistical analysis (Cronbach, 1974) were used for the data analysis. The reliability of all aspects was found over 0.80, and its individual aspects were found as follows: planning (0.919), organizing (0.918), staffing (0.903), directing (0.905), and controlling (0.914). There were 64 issues asked in the closed-end questionnaire developed by the researcher.

Sample group

The samples were executives from the Ministry of Tourism and Sports executives, Sports Authority of Thailand, and Department of Physical Education, committee from National Olympic of Thailand under the Royal Patronage of His Majesty the King, the Sports Association of Thailand, and Provincial Sports Association, sports science personnel from Sports Authority of Thailand, and Department of Physical Education, and sports science experts by samples sizing of Krejcie & Morgan (R.V. Krejcie & D.W. Morgan, 1970).

Research results

1. Results on the importance regarding the theoretical concept of POSDC towards Thailand Institute of Sports Science revealed that Staffing was found at a highest level, ($\bar{x}$ = 4.56, SD = 0.62), and next were Planning at a highest level, ($\bar{x}$ = 4.52, SD = 0.71), Directing at a high level, ($\bar{x}$ = 4.50, SD = 0.63), Controlling at a high level, ($\bar{x}$ = 4.49, SD = 0.63), and Organizing at a high level, ($\bar{x}$ = 4.41, SD = 0.77).

2. Results on constructing the management model of Thailand Institute of Sports Science

2.1 Planning: this aspect is designed to set the effective plan for management: Plan (P), the institute should review and define the strategic plans, vision, missions, goals, objectives, and policy by SWOT analysis; Do (D), the institute should implement the action plan, establish different plan period (1 year, 3 years, and 5 years), annual action plan that is ready to set indicators and the goal of each measure, a monitoring system based on indicators, and prepare the institution management manuals, the annual budget to meet the need for implementation, and an institute strategic plan; Check (C), the institute should monitor the requirements, possibility, and the institutions readiness, evaluate, and report the institution strategic plan evaluation; and Act (A), the institute should monitor the progress, obstacles to success, and failure, develop and improve the strategic plan of the institution, Reviewing the institutions annual report, and Collect data on the past year performance to make the annual report.

2.2 Organizing: this aspect is designed to organize the institute efficiently to meet the management plan: Plan (P), the institute should determine the structure of the institute, authority, and responsibility, design institute structure, and characteristics, Set the stage for the institution performance, plan effective organization, public relate by using various media channels, set the feature and performance of each department and positions, and determine staffing in each department; Do (D), the institute should prepare of the manual operation

of the institution, Jointly develop institutional structures, cooperate in operations to reduce costs and complex functions, Consistently arrange activities to disseminate relevant information, and properly assign task; Check (C), the institute should evaluate the organization performance, the joint operations, make sure that the operations is consistent with the action plan, vision, and mission; and,Act (A), the institute should improve organization efficiency, and the process of performance to be effective.

2.3 Staffing: this aspect is designed to develop the staff for management: Plan (P), the institute should set the rules and regulations of staff recruitment and selection, plan process for the recruitment and selection, determine the composition of the Institute Board of Director, and design personnel administration system; Do (D), the institute should prepare personnel development plans, perform the assignment according to the position and discipline, allocating staff welfare, and promote and developing personnel; Check (C), the institute should evaluate personnel administration, and the personnel performance; and Act (A), the institute should reposition personnel to suit his/her capabilities, and recruiting and selecting personnel to meet the performance and operations.

2.4 Directing: this aspect is designed to direct the institute in an effective way: Plan (P), the institute should plan to establish guidelines, determine the development and implementation of the goal, and define the institute ethic development; Do (D), the institute should implement the guidelines set forth, control the institution management risks, supervise, and arrange meetings between department management and personnel; Check (C), the institute should evaluate the implementation of the order, evaluate of the implementation and compare the results with defined goals, and evaluate supervision results; and Act (A), the institute should revise instruction guidelines, arrange directing and controlling activities.

2.5 Controlling: this aspect is designed to control the quality of management: Plan (P), the institute should define the institute management control, define standards that causes the organization development and benefits, establish the control committee, and define the purpose of the regulation that is consistent with the vision, mission, and the development approach; Do (D), the institute should prepare the controlling implementation approach, implement the guidelines set forth, control implementation, and prepare the annual evaluation reports; Check (C), the institute should evaluate the organization performance based on the institution development plan, compare the organization performance with the set standard, and evaluate the controlling implementation; and Act (A), the institute should correct mistakes, amend performance evaluation process, systematically monitor performance, control performance for meeting objectives, and prepare the annual evaluation reports.

Discussion

1. Planning sets the direction for the institute work, so it should be a comprehensive plan to develop the institute's clear mission, roles, and responsibilities of those defined as an annual action plan that can actually and effectively be put into practice. Good planning will provide direction to management. Organization should be encouraged to be able to quickly face problems and changing environment. This is consistent with Jamrat Nongmak (2002). Advance preparation to get the job effectively done. Objectives, responsible persons, time, and resources must be defined in planning (Wichian Vitayaudom, 2011). If there is no planning, no goals, and action plans that can be used as a guideline, the executive would not be able to effectively and efficiently perform the management (Judith R. Gordon; et al. 1990).

2. Organizing defines the organizational structure, appointment of the institution board of directors, the processes and practices, and defining clear role according to the organizational structure. Staff must be appointed to positions that are consistent with his/her capability and knowledge. Staffs must also have a vision consistent with the corporate culture (Drucker Peter F., 2005). This is consistent with Gulick & Urwick, 1937 (cited in Sakorn Suksriwon, 2007) concluding that the organization should be classified to subordinate departments along with the objectives of the duties and responsibilities of each section and set the supervisor range. Organizing is very important because it will help ensure a smooth transition. Organizing may be in the form of an organizational chart to communicate an internal organization understanding on the authority, responsibility, chain of command, and tasks assignment to workers in accordance with the appropriateness.

This is also consistent with Edwin B. Flippo (1970) saying that the relationship between the various parts of the person and the work to combine into an effective unit lead to achieve the target.

3. Staffing as recruitment, selection and management of personnel in the organization in accordance with defined functions, recruitment process and design, and system administration

efficiency. This is consistent with Jame, 1971 (cited in Denduang Kumthong, 2001) proposing that staff development is the result of experience, assigning responsibility for the operation clearly, determining the appropriate authority, the operational control to ensure compliance with the standards leading to the development of the organization's activities. This is consistent with Nadler, 1979 (cited in Denduang Kumthong, 2001) stating that that human resource development is ensuring that employees have experienced and learned over a period of time.

4. Directing administrators need to play the role of models in guiding knowledge, human relations, various methods, and techniques in providing supporting factors that will encourage members to be motivated to work to achieve a successful outcome that focuses on effective communication. This is consistent with the principle of Supanee Saritvanid (2011) indicating that 1) Personal factors referring to the difference between the individuals such as personality, beliefs, values, attitudes, abilities, perceptions and expectations as well as different gender, age, education, and occupation, 2) Occupation factors such as different jobs, nature, and characteristics, and 3) Organization factors such as structure, cultural, norms, policies, and regulations which will influence the atmosphere and chances of employees resulting in different work motivation.

5. Controlling is the control of defining the standards contributing to the institute development and board of director establishment to control the management of the institute. This is consistent with Drucker Peter F. (2005) stating that the duty to oversee and track the organization operations at all levels to be consistent with the set objectives. The administrators also need to track the results of operations and compare the actual performance with the set goals or standards. If actual performance is deviated from the set goal, it must be amended to meet the target. The processes of evaluation, comparison, and amendment are controlling, monitoring the organization staff or member performance to perform the duties assigned or defined duties. The work is to determine whether or not the standards organization. The control is bound to consider the errors and weaknesses formed to find ways to improve (Wararat Keawpairee, 2010) for improving, preventing, coordinating, detecting, and correcting deficiencies that may arise in the operation.

Recommendations

1. There should be a comparative study of organizational form and structure developed by the researcher with international Sports Science Institute management standards.
2. There should be studies conducted on the management of the individual components of Thailand Institute of Sports Science to find the most suitable model for Thailand.

References

Cronbach, L. J. 1974. Essentials of Psychological Testing. 3rd ed. New York: Harper andRow.

Denduang Kumthong. 2001. The development needs of teachers and college professorsin the Department Chonburi province, Vocational education, special issue ofpublic Administration, Master of public policy, Burapha University.

Deming, W. Edwards. 2004. PDCA. Tokyo: Japan.

Drucker, P. F. 2005. The Effective Executive in Action. New York: Harper Collins.

Flippo, Edwin B. 1970. Management: A Behavioral Approach. 2nd ed. Boston: Allyn andBacon.

Gordon, Judith R.; & others. 1990. Management and Organizational Behavior. Boston:Allyn & Bacon.

Jamrat Nongmak. 2002. Education Quality Assurance Operation, Bangkok: the Instituteof Academic Development.

Koontz Harold D. and Cyril O'Donnell. 1972. Principles of Management. An Analysis of Managerial Functions. New York: MC Graw – Hill.

Ministry of Sports and Tourism. 2012. Strategic Plan of Ministry of Sports andTourism (BE2555-2559) Bangkok: Printing

Agricultural Cooperatives of Thailand. 2012. Sports National Development Plan No.5 (BE2555-2559). Bangkok:

Office of the Welfare Promotion Commission for Teachers and EducationPersonnel. 2017. Sports National Development Plan No.6 (BE2560-2564). Bangkok:

Office of the Welfare Promotion Commission for Teachers and EducationPersonnel.

R. V. Krejcie and D. W. Morgan. 1970. Determining Sample Size for ResearchActivities. Journal of education & psychological measure. Vol. 30.

Sakorn Suksriwon. 2007. Management: from the management perspective. 3rd ed.Bangkok: GP Cyber Print.

Sports Authority of Thailand. 2017. Strategic Plan of Sports Authority of Thailand (BE2560-2564). Bangkok: The Sports Authority of Thailand.

Supanee Saritvanid. 2011. Modern Organization Behavior. 7th ed. Bangkok:Chulalongkorn University.

Wararat Keawpairee. 2010. Management Knowledge. (lecture document). Bangkok:Dhonburi Rajabhat University.

Wichian Vitayaudom. 2011. Modern Management. Nonthaburi: Tanarat printing.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp91-92
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Effect of Weight Training Exercises for development of Speed among High jumpers of Hyderabad in India

Prof.Rajesh Kumar
Secretary, Board of Control, IUT,OU
Osmania University, Hyderabad,India
Email:rajesh2sports@yahoo.co.in
Prof.B.Sunil Kumar
Director of Physical Education, Osmania University, Hyderabad

Introduction:
In the 1960's, Weight training found its way into the training of track and field events. In High jump Weight Training are very important for High jumpers since their contacts are longer than sprinters, and they must fight gravity.The High jump is a track and field athletics event in which competitors must jump over a horizontal bar placed at measured heights without the aid of certain devices. In its modern most practiced format, auxiliary weights and mounds have been used for assistance; rules have changed over the years. Over the centuries since, competitors have introduced increasingly more effective techniques to arrive at the current form. Javier Soto mayor(Cuba) is the current men's record holder with a jump of 2.45 m (8 ft 0¼ in) set in 1993, the longest standing record in the history of the men's high jump. Stefka Kostadinova (Bulgaria) has held the women's world record at 2.09 m (6 ft 10¼ in) since 1987, also the longest-held record in the event. The Fosbury Flop is a style used in the athletics event of high jump. It was popularized and perfected by American athlete Dick Fosbury, whose gold medal in the 1968 Summer Olympics brought it to the world's attention.

The straddle technique was the dominant style in the high jump before the development of the Fosbury Flop. It is a successor of the western roll. Unlike the scissors or flop style of jump, where the jumper approaches the bar so as to take off from the outer foot, the straddle jumper approaches from the opposite side, so as to take off from the inner foot. In this respect the straddle resembles the western roll. However, in the western roll the jumper's side or back faces the bar; in the straddle the jumper crosses the bar face down, with legs straddling it. With this clearance position, the straddle has a mechanical advantage over the western roll, since it is possible to clear a bar that is higher relative to the jumper's center of gravity.

WORLD RECORDS IN HIGH JUMP

Rank	Mark	Athlete	Date	Place
1	2.45 m (8 ft 0¼ in)	Javier Sotomayor (CUB)	27 July 1993	Salamanca
2	2.43 m (7 ft 11½ in)	Mutaz EssaBarshim (QAT)	5 September 2014	Brussels
3	2.42 m (7 ft 11¼ in)	Patrik Sjöberg (SWE)	30 June 1987	Stockholm

Objectives of the Study: The objective of the study is to determine the effect of weight training exercises for development of speed among High jumpers of Hyderabad in India.

Previous Studies
Markovic G (2007) published in the British Journal of Sports Medicine has justify the application of Plyometric Training for the purpose of development of vertical jump performance in healthy individuals.

S.Jayaraman (2011) Asian Journal of Physical Education and Computer Science in sports- Vol.5- Effect of Weight Training and Fartlek Training on Selected Physiological Variables among College Men Students:His Studies there is a significant improvement of Physiological variables due to Weight Training.

Al Moslim Hasan (2014) Journal of Physical Education and Sport- Effect of combined Plyometric and Weight Training on speed of male students with different body fat

Combined Plyometric and Resistance Training has positive effects on fitness variables such as speed (Ronnestad et al 2008, Rahimi et al 2006, De Villareal et al 2011 etc

Methods:

The sample for the present study consists of 40 Male High Jumpers of Hyderabad out of which 20 are experimental group and 20 are controlled group. Weight Training exercises such as Squats, Curls, Squat jumps, Lunges with Weights etc were given to experimental group on alternate days i.e. three sessions per week and controlled group were given the general training in High Jump for eight weeks.

To assess the Speed Pre Test and Post Test 50 Meters Run is conducted to the experimental group and controlled group

Results and Discussion:

The Independent Samples t Test Statistics is applied for the Study. The Comparison were made among Experimental Group and Control Group in Pre Test and Post Test Means

Table 1: Showing the Mean values and Independent Samples Test of 50 M run test between experimental and control groups of High Jumpers.

Variables	Group	Pre Test Mean ± SD	Post Test Mean ± SD	t	P - Value
50 M Run Test	Experimental	7.51 ± 0.294	7.23 ± 0.262	4.58	0.000
	Control	7.64 ± 0.376	7.73 ± 0.408		

*Significant at 0.05 level

In Table 1 the Mean values of Experimental Group of High Jumpers has reduced from 7.51 to 7.23 due to the Weight Training and Mean Values of Control Group of High Jumpers has increased 7.64 to 7.73 due to not concentrating of any specific method only general Training given to Controlled group High Jumper. The Results of the Study shows that Experimental Group of High Jumper has increased in the Performance of 50 M Run .

Conclusion:

It is concluded that due to Weight training there will be improvement in speed among High Jumpers. In this study due to the weight training exercises there is a improvement in strength and speed among High Jumpers.

Recommendations:

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

References:

https://en.wikipedia.org/wiki/High_jump
https://www.ncbi.nlm.nih.gov/pubmed
Wikipaedia, Weight Training
Wikipaedia, sprints
www.topendsports.com
Asian Journal of Physical Education and Computer Science in sports

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp93-94
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Comparative Study of Speed and Explosive Strength among Sepak Takraw Players and Volley Ball Players of Osmania University in India

Prof.Loka Bavoji Laxmikanth Rathod
Principal, University College of Physical Education
Osmania University, Hyderabad,India
Email:rathodlb@rediffmail.com
Prof.K.Deepla
Chairman, Bos in Physical Education, OU, Hyderabad

Introduction:

Sepak" is the Malay word for kick and "takraw" is the Thai word for a woven ball, therefore sepak takraw quite literally means to kick ball. The choosing of this name for the sport was essentially a compromise between Malaysia and Thailand, the two powerhouse countries of the sport."Sepak" is the Malay word for kick and "takraw" is the Thai word for a woven ball, therefore sepak takraw quite literally means to kick ball. The choosing of this name for the sport was essentially a compromise between Malaysia and Thailand, the two powerhouse countries of the sport. Endurance is the important motor ability for sepak takraw players. The basic elements of speed, mobility and strength are all functions of explosive power and agility. Sepak Takraw is Playing Volleyball with the Feet.Sepak takraw is a skill ball game originated from Asia. It combines the teamwork of volleyball, the dexterity of soccer and the finesse of badminton. In Thailand it is called takraw, but the official name of this internationally recognized game is sepak takraw. Without a doubt it is one of the world's most exciting sports, both to play and to watch, yet it is relatively unknown outside of Southeast Asia. Playing the sport requires little in the way of equipment or preparation but it does require quick reflexes, coordination, agility and, above all, technique.

The game is played by two opposing Regus, a team of three players each, on a court separated by a net similar to badminton. It begins with the service, executed by a ball toss from one player to the Server. Then, the players try to beat their opponents using their legs and head, except their hands, inside three kicks. The highlight is the "spike".This is the most dramatic and explosive move in the game for spectators to watch as players go mid-air, twisting and turning to power the ball down into the opponent's court. To play takraw, players can use either a net, a hoop, or simply stand around in a circle formation.

Volleyball is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules.[1] It has been a part of the official program of the Summer Olympic Games since 1964.

The history of Olympic volleyball traces back to the 1924 Summer Olympics in Paris, where volleyball was played as part of an American sports demonstration event. After the foundation of FIVB and some continental confederations, it began to be considered for official inclusion. In 1957, a special tournament was held at the 53rd IOC session in Sofia, Bulgaria to support such request. The competition was a success, and the sport was officially included in the program for the 1964 Summer Olympics.

Objectives of the Study:

The Objectives of the study is to find the Speed and Explosive Strength among Sepak Takraw Players and Volley Ball Players of the Osmania University in India.

Methods:

The Sample for the Study consists of 20 Sepak Takraw Players and 20 Volley Ball Players of Osmania University between the age group of 19-21 Years. To assess the speed the 50 M Run Test and Explosive Strength the Standing Broad Jump Test is used for the study.

Results and Discussion:

The results of the study shows that the Sepak Takraw Players are good in Explosive Strength and Volley Ball Players are having good Speed. Sepak Takraw combines ball skills with the agility and acrobatic moves of gymnasts and Volleyball players barely move, spending much of their time standing in the same small area of the court

Table I showing the Mean values and Independent Samples Test of Standing Broad Jump between Sepak Takraw and Volley Ball Players

Variables	Group	Mean ± SD	t	P - Value
Standing Broad Jump	Sepak Takraw Players	2.30 ± 0.157	3.55	0.001
	Volley Ball Players	2.26 ± 0.159		

*Significant at 0.05 level

In Table –I the Mean Values of Sepak Takraw Players in Standing Broad Jump is 2.30 and Volley Ball Players is 2.26. The Standard Deviation on Sepak Takraw Players is 0.157 and Volley Ball Players is 0.159 and t is 3.55 and P-Value is 0.001The Mean values of Sepak Takraw Players in Standing Broad Jump is 2.30 and Volley ball Players is 2.26 in Standing Broad Jump. Hence the Sepak Takraw Players are having good explosive Strength compare to Volley Ball Players. Sepak Takraw players uses leg strength to hit the ball, hence they might be having more explosive strength compare to Volley Ball players.

Table-II: Mean values and Independent Samples Test of 50 M Run between Volley ball Players and Sepak Takraw Players

Variables	Group	Mean	SD	t	P - Value
50 M Run	Volley Ball Players	7.23	0.262	4.58	0.000
	Sepak Takraw Players	7.73	0.408		

*Significant at 0.05 level

In Table –II the Mean Values of Volley Ball Players in 50 M Run is 7.23 and Sepak Takraw Players is 7.73 . The Standard Deviation on Volley Ball Players is 0.262 and Sepak Takraw Players is 0.408 and t is 4.58 and P-Value is 0.000.The Mean values of Volley ball Players in 50 M Run is 7.23 and Sepak takraw Players is 7.73 in 50 M Run. Hence the Volley Ball Players are having good speed compare to sepak takraw Players. The results of the study shows that the Sepak Takraw Players are good in Explosive Strength and Volley Ball Players are good in Speed.

Conclusions:

It is concluded that the Sepak Takraw Players are good in Explosive strength because they require good jumping ability to hit the ball and Volley ball players are good in speed because they require good speed to move in court along with the agility.

Recommendations:

Similar Studies can be conducted among females and in other Sports and games. This study is useful to the Coaches to prepare the conditioning program to improve their skills in Sepak Takraw and Volley Ball

Players.

References:

Wikipaedia Sepaktakraw and Volley ball

www.topendsports

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp95-100
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Relationship between Internet Competency and Academic Achievement of Physical Education Trainee Students in professional Colleges, Andhra Pradesh.

B.Gowri Naidu[1*], Dr.A.Pallavi[2]
[1]Dept.of.Physical Education and Sports Sciences, Andhra University, Visakhapatnam-530001
[2]Dept.of.Physical Education and Sports Sciences, Andhra University, Visakhapatnam-530001.
*Email:bgowrinaiduindia@gmail.com, alaharipallavi@gmail.com.

Abstract
This paper was aimed to answer whether there is relationship between internet competency (IC) and academic achievement (AA) among Physical Education Trainee students in professionalcolleges with various combination of courses as (U.GD.P.Ed,B.P.Ed and M.P.Ed). This was a correlation study with prediction and analytical research. A total of 254 Physical Education Trainee students in professionalcolleges of final year were drawn randomly from the four chosen colleges giving representation to three different combinations- U.GD.P.Ed, B.P.Ed and M.P.Ed. One college under each type: Private Aided College, Private Unaided College, Government College and University Constituent College. One of chosen using convenience sampling technique. The IC questionnaire prepared by the researcher employed to assess IC in total and component wise. The data analyzed using Pearson's Correlation Coefficient and Multiple Regression. The findings indicated that component of information search significantly and negatively correlated with AA of Physical Education Traineestudents in professionalcolleges with different combination of courses (U.GD.P.Ed, B.P.Ed and M.P.Ed). Further results showed that in total there was no significant positive relationship between IC and AA of Physical Education Trainee Students in professional colleges.
Keywords: Internet competency, information management, search, computer general knowledge etc.

Introduction

The essential usage of information technology is an important index of national and economic growth. New finding of technology especially computer technology cause different change and make things easier for use in routine life. Technologies role is so important and one of the important issues in education policy in the world. In the educational area, many specialists have same ideas in using information and communication technology. Usha explains the use of internet especially (WWW) causes a new horizon of the information production and delivery that global caused digitization programmes. Ojedokun and Owolabi believe that teacher should change their teaching method and learn Internet skills. Teachers have to learn new method and teach to their students to use Internet to acquire new information. In some developed countries, the educational institution in particular are essential users of ICT, they understand the fact that ICT provides more useful teaching and learning processes. The web is essential source of acquisition of information in academic level. Scholars can find different articles in Web. Any information in research field can be found on the online website. The barriers of communication are broken through Internet. The connection through net is easy without any limitation and barrier. And many facilities are available for the users without any obstacle. The Internet provides opportunity to use up-to date research findings in different topics, Such as technology and Sports and Games, art and music, finance and business. Thus it is important tool of learning in electronic eras. Student shouldhave new skills for better use of Internet facilities, for evaluating the quality of found sources, in web designing information in using chartrooms or etc. Internet Competency (IC) is the ability of a person to use the Internet correctly. It is a mixture of skills and knowledge of using the Internet to improve their action.

Learning is one of the essential factors in the advancement. Human beings gain his/her success in the light of leaning. There are many factors that affect the learning which one of them is individual IC.

The Internet have the influence on the social life of individuals, leisure, consumer, community well-being and economic. The Internet facility is easy for use and prepares many benefits for person in daily life. (E.g. social life, work life, leisure life and education life). Some authors proposed that the Internet has direct influence on Academic Achievement (AA) with using of educational software, and the provision of essential information. Others suggest that the Internet prepare practices for socialization as it provides the closeness of human's relationships without time consuming and location.

The significance of present study is the fact that nowadays the Internet is essential factor in individual's life, institutions in India. The recent decades have witnessed a dramatic increase in the usage of the Internet and an unprecedented increasing computer-based technology. Computer technologies and the Internet cause social changes in modern society. Since computers are a common tool of daily living for a more population, the Internet has a great influence on quality of life. Statistical research show us that global Internet users numbered16 million in 1996, and increased to 500 million by 2001. The statistics information on internet users penetration worldwide from 2014 to 2019.In 2015, 43 percent of the global population accessed the internet .This figure is projected to grow to 49.3 percent. For example, 90% of American teens use the Internet. However, as affirmed in above, India is grows very fast in Internet use. Adolescents and youth use a lot from Internet activities than adults.

The findings of this study can identify the relationship between IC and AA of Physical Education Trainee students, Administrators and teachers can inform students about the role of Internet in improving their AA. Furthermore, they can encourage students to use the Internet to increase their knowledge, and give more Internet facilities available for Professional coursesPhysical Education Trainee Students.

Adegoke showed that most of the students use the Internet easily. Most of the students that have facility to use the Internet browse more for other purpose (socio-networking sites). The relationship between Internet browsing and students' achievement in Agricultural Science through positive is not significant.

YangKim showed there is no statistically significant correlation between Internet use and AA. Total Internet access was highly correlated to nonacademic related Internet browsing. Although not statistically significant, the consistent negative correlations between nonacademic Internet use with both self-regulation and achievement shows that the Internet is fascinating distraction to achievement which may related to lack of self-regulation.

Puzziferro showed that online technologies self-efficacy scores have not correlation with student performance.

Jackson, Von Eye, Biocca, Barbatsis, Zhao and Fitzgerald shown that children who used the Internet are given more point on standardized tests of reading achievement and higher mark averages 6 months, 1 year, and 16 months later than did children who used it less. Grown children accesses the Internet more than younger children, but age limitation had no influence on the nature or the academic performance usage of Internet.

Lim indicated that Internet information literacy correlated with Internet literacy (mechanical aspect) at a relatively high coefficient (0.71) and with computer literacy at coefficient of 0.67. Further, there was correlation between the frequency of use of the Internet for schoolwork and the literacy level of the participants in computer, Internet and information literacy, and also their innate ability.

The present survey is a try to study the relationship between IC and AA of Physical Education Trainee Students. It is hypothesized that there is significant relationship between IC and AA of Physical Education Trainee Students in professionalcolleges with differ combination of courses Under Graduation Diploma in Physical Education (U.G.D.P.Ed) Bachelor of Physical Education (B.P.Ed) and Master of Physical Education (M.P.Ed)

Methods

The population of this survey are used from final year of students of AndhraUniversity (AU) region and Sri Venkateswara University (SVU) region colleges, Andhra Pradesh state. That have Physical Education matter in various combinations as (U.G.D.P.Ed, B.P.Ed and M.P.Ed) in

(Andhra Pradesh - India). The population volume was 745Physical Education Trainee students as detailed here: U.G.D.P.Ed (234 students), B.P.Ed (323 students) and M.P.Ed (188 students). Convenience sampling methods used to choosen the colleges in Andhra University (AU) region and Sri Venkateswara University (SVU) region colleges, Andhra Pradesh state. And random sampling technique used to show last yearPhysical Education Trainee students from the various colleges giving representation to different combinations–U.G.D.P.Ed, B.P.Ed and M.P.Ed. Totally 254 students were selected according to the table of Crecy and Morgan. All the colleges constituting the sample of the study are affiliated to Andhra University (AU) and Sri Venkateswara University (SVU). One College was selected under each kind of college: Private aided College, Private unaided College, Government College and University Constituent College. The given details of sample elected for the study in table.

The IC Scale used in this research paper to determine IC created by the scholar. This scale combines of 6 components- information search, communication and collaboration, computer general knowledge, general webpage using, computer general ability and information management. Each component consisted of multiple items. In whole, this Scale contained 72 items.

The IC Scale used to assess IC in total and each component. This scale included of 6 major components. Each component including of several items in each component, each item has 5 levels of responses like Very Good, Good, Average, Poor and Nil. Which were given rating of 4 to the very good, 3 to the good, 2 to the average, 1 to the poor, and 0 to the nil. Each item scored by assigning the number allotted to the corresponding rating and the total score on each component was get by calculating the mean of the scores assigned to every one of the items in that component.

For reliability the scale given to faculty members and Ph.D. students of Department of Physical Education and Sports Sciences in Andhra University and Department of Studies in Psychology and Department of Computer Science. Based on the discussion with them and their offer, selected items were modified; certain items added or reduced and finalized the instrument. Cronbach alpha coefficient used to represent its reliability and it was found to be 0.97 for the whole scale.

Table-1 Details of the sample for the study

S.No.	Kind of professional College	Population & Sample	Combination of fields									Total
			U.G.D.P.Ed			B.P.Ed			M.P.Ed			
			F	M	T	F	M	T	F	M	T	
1	Pvt. Aided	Population	9	20	29	10	44	54	0	13	13	96
		Sample	4	8	12	4	18	22	0	5	5	39
2	Pvt. Unaided	Population	-	-	-	11	-	11	35	-	35	46
		Sample	-	-	-	5	-	5	14	-	14	19
3	University Constituent College	Population	12	50	62	25	109	134	28	50	78	274
		Sample	5	20	25	10	44	54	11	20	31	110
4	Government	Population	82	-	82	97	-	97	34	-	34	213
		Sample	33	-	33	39	-	39	14	-	14	86
Total		Population	103	70	173	143	153	296	97	63	160	629
		Sample	42	28	70	58	62	120	39	25	64	254

This is a correlation study with descriptive and analytical research. Further involves prediction of most contributing variables to the AA of Physical Education Trainee Students in professionalcolleges through Regression analysis. The data was collected using IC questionnaire. During administration of the scale, clarifications were given for certain items on demand. The analyzed data used Pearson correlation coefficient and Multiple Regression with SPSS.

3. Results and Discussion

From the table 2 it is clear that only one IC component (information search) significantly and negatively correlated with AA. Information search was found to be significantly and negatively with AA ($r = -.134$; $p<.05$).

Table-2 Results of Pearson's Correlation Coefficient for IC and Academic Achievement of Physical Education Trainee Students in professional colleges with different course U.G.D.P.Ed, B.P.Ed and M.P.Ed (in total and component wise)

Internet Competency Components	Academic Achievement	
	R-value	P- value
Computer General Ability	-.03	.632 NS
Computer General Knowledge	-.02	.734 NS
Communication and Collaboration	-.02	.774 NS
General Webpage Using	.00	.981 NS
Information Search	-.13	.033*
Information Management	-.03	.646 NS
Total IC Components	-.04	.542 NS

*Significant at the 0.05 level NS: Not Significant.

Rest of the correlation coefficients between IC components in total (r= -.04; p>.05) and IC components -Computer General Ability (r= -.03; p>.05), Computer General Knowledge (r= -.02; p>.05), Communication and Collaboration (r= -.02; p>.05), General Webpage Using (r= .00; p>.05) and Information Management (r= -.03, p>.05) with AA were found to be independent of each other including total scores both for IC and AA.

Table-3 Regression of Academic Achievement on IC model summary and ANOVA

Model	r	r Square	Adjusted r Square	df	F	P
1	.24	.06	.05	2, 251	7.53	.001**

**P<0.01

The Multiple Regression was used to assess the multiple coefficient of correlation between IC components and AA in Physical Education Trainee students. So the variables such as communication and collaboration, information search, computer general knowledge, general webpage using, computer general ability and information management as predictors and AA (G.P.A.) as a criterion variable were entered into the regression equation with the Stepwise method. The multiple coefficients of correlation among the variables were 0.24 which explains 6% of variance of average marks (R2=0.06). Further table 3 shows that the model is significant (F=7.53, P<0.01).

Table-4 Regression Coefficient of IC among the Physical Education Trainee students

Predictors	Standardized Coefficient Beta	t	P Value
(Constant)		21.02	.000
Information Search	-.42	3.89	.000**
General Webpage Using	.35	3.21	.002**

Table 4 shows that among the components of IC, information search (Beta= -0.42, t=3.89, p<0.01) and general webpage using (Beta= 0.35, t=3.21, p<0.01) were the best predictor of AA (G.P.A.) ofPhysical Education Trainee students.

Table-5 Regression Coefficient of IC components among the Physical Education Trainee students (Excluded Variables)

Variables	Beta In	t	P Value
Computer General Ability	.08	.9	.371 NS
Computer General Knowledge	.12	1.23	.219 NS
Communication&Collaboration	.06	.57	.570NS
Information Management	.02	.16	.870 NS

Table 5 shows that among the components of IC, computer general ability (Beta= 0.08, t=0.9, p>0.05), computer general knowledge (Beta= .12, t=1.23, p>0.05), communication and collaboration (Beta= 0.06, t=0.57, p>0.05) and information management (Beta= 0.02, t=0.16, p>0.05) were not the predictor of AA (G.P.A.) ofPhysical Education Trainee students. Therefore the above variables have been removed in the model.

Discussion:

Result of this study indicated that component of information search significantly and negatively correlated with AA of Physical Education TraineeStudents in professional course with different combination of courses (U.G.D.P.Ed, B.P.Ed and M.P.Ed). This means that more usage of the information search on the sites and databases byPhysical Education Trainee students to decrease the student AA. In the contrary any amount of Information Search on the sites and databases by students, increase their AA. This result is similar with the results of studies by Lim, showed that there is correlation between the frequency of use of the internet for schoolwork and the literacy level of the participants in internet, computer, information literacy and their innate ability.

Other result in this paper showed that there is no significant correlation between total IC and AA, computer general knowledge and AA, computer general ability and AA, communication and collaboration and AA, general webpage using and AA, information management and AA of Physical Education Trainee students in professionalcourse with different combination of courses(U.G.D.P.Ed, B.P.Ed and M.P.Ed). This means that in this study the components of IC mentioned in above has no impact on the AA of Physical Education Trainee students in professional with different combination of courses (U.G.D.P.Ed, B.P.Ed and M.P.Ed). This finding is on par with the results of studies by Yang Kim, Adegoke, Puzziferro, Jackson, Von Eye, Biocca, Barbatsis, Zhao and Fitzgerald.

YangKim showed there is no evident correlation between Internet use and AA. Total internet access was highly correlated to nonacademic related internet browsing. Adegoke indicated most of the students that have access to the Internet browse more for non-educative information. The relationship between Internet browsing and students achievement in Agricultural Science through positive is not significant. Puzziferro states that online technologies self-efficacy marks are not same with students' ability. Jackson, Von Eye, Biocca, Barbatsis, Zhao and Fitzgerald revealed that children who used the Internet more.

Had higher ability on standardized tests of reading achievement shows better mark during 6 month, 1 year, and 16 months later than did children who used it less. Older children used the Internet more than did younger children, but age have no effect on the nature or the academic performance benefits of Internet use.

Further result shows that information search component and general webpage using component were the best predictor of AA for students of Physical Education Trainee students in professional with different combination of courses (U.G.D.P.Ed, B.P.Ed and M.P.Ed). However the other components of IC - information management, computer general knowledge, communication and collaboration and computer general ability were not the predictor of AA for students of Physical Education Trainee students in professionalcourse with different combination of courses (U.G.D.P.Ed, B.P.Ed and M.P.Ed).

The Internet is used for instruction and learning in colleges and classrooms. Although, there are problems with Internet use such as Internet addiction or unregulated Internet use. When students use the Internet academically or non-academically, both can influence their learning positively or negatively.

The Colleges affiliated to Andhra University and Sri Venkateswara University should have to use more finding and the other accessible support for Internet and information literacy. Also Physical Education professional colleges must take initiative to provide facilities for students and ask them to develop IC for the improvement of Achievement of students.

Physical Education Trainee Students of colleges affiliated to Andhra University and Sri Venkateswara Universityshould have use the Internet as much as better in academic and research requirements, and for better result. They should not spend their valuable times in Internet for seek for vain activities such as playing the game, friends chat, entertainment, etc.

Conclusion:

According to the above findings it can be concluded that more usage of the information search on the sites and databases by students to decrease the student AA and vice versa. Total IC and the other components of IC (information management, general webpage using, communication and collaboration, computer general knowledge, computer general ability) have no impact on the AA of Physical Education Traineestudents in professional level. Further can be concluded that between the components of IC, information search and general webpage using were the best predictor of AA for students of Physical Education Trainee students in professional level with different combination of courses (U.G.D.P.Ed, B.P.Ed and M.P.Ed). The results of present study can be used for managers, planners, lecturers and educators in universities and educational institutions, particularly online classes, distance education, open universities and virtual education in curriculum and instructional planning.

References

1. Jegede O.J., Technology and the third world: students' perception of computer in education in Nigerian classrooms, Paper presented at the 5th World Conference on Computer in Education, Sidney, Australia, (1990).

2. Cuckle, P., Clake, S. and Jenkins, I. (2000) Student teachers' information and communication technology skills and their use during teacher training. *Journal of information technology for teacher education,* 9 (1), pp. 9-22.

3. Cuckle, P and Clake, S (2003) Secondary school teacher mentors' and student teachers' views on the value of information and communication technology in teaching. *Technology, Pedagogy and Education,* 12 (3), pp. 377-391.

4. Elbourn, J. and Cale, L. (2001) Selecting Computer-based resources to support learning in Physical Education. *The British Journal of Teaching Physical Education,* Winter pp. 35-37.

5. DfEE and QCA. (1999) *Physical Education: the National curriculum for England.* London: Defer and QCA.

6. Fischer, T. (1996) Information technology and the curriculum: IT capacity and the new teacher. *British Journal of Curriculum and Assessment,* 6 (2), pp. 33-37.

7. Ofsted. (2004c) *ICT in Schools 2004: The impact of Government Initiatives: secondary physical education.* London: Ofsted. Available at http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.displayfile&id=3642&type=pdf.

8. Simpson, M. and Payne, F. (1999) *Using Information and Communications Technology as a Pedagogical Tool - Who Educates the Educators?* Paper presented at the European Conference on Educational Research, Lahti, Finland 22-25 September 1999. Available online at: www.leeds.ac.uk/educol/documents/00001292.doc (accessed 15/11/05)

9. Teacher Training Agency (TTA). (2002a) *qualifying to teach: professional standards for qualified teacher status and requirements for initial teacher training.* London: TTA

Teacher Training Agency (2002b) NQT survey 2002 available on line at: http://www.tda.gov.uk/partners/datasurveys/nqtsurvey/nqtsurvey2002.aspx accessed 15/11/05)

10. Van Damme, G. (2001)*ICT in Practice for Physical Education & Sports.* Available on line at: http://www.sports-media.org/ (accessed 15/11/05).

11. http://www.statista.com/statistics/325706/global-internet-user-penetrati /

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp101-103
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

A Comparative Study Of Body Mass Index Between fast Bowlers And Slow Bowlers In Cricket

Bhupender Kumar[1], Dr. Amandeep Kaur [2], Dr. Mandeep Thour[3]
[1] Research Scholar, Department Of Physical Education, Panjab University, Chandigarh, 160019
[2]Asst. Professor, Department Of Physical Education, Ggs College For Women Sec-26, Chandigarh, 160019
[3]Asst. Professor, Department Of Physical Education, Sggs College Sec-26, Chandigarh, 160019

Abstract
The Main Purpose And Objective Of The Study Was To Compare The Body Weight, Height, Body Mass Index Between Male Fast Bowlers And Male Slow Bowlers In Cricket. A Total Of 30 State Level Male Subjects Age Ranged Between 16-19 Years Were Selected For This Study From Cricket Coaching Centre, Jind (Haryana) Approved By BCCI. Height And Body Weight Were Taken By Standard Tests. Bmi Was Calculated By The Formula: Body Mass Index (BMI) = Weight In Kilograms / (Height In Meters) ^{2}. Weight Was Measured In Nearest A Kilogram And Height Was Measured In Nearest A Centimeter. The Purposive Sampling Method Was Used To Obtain The Objective Of The Study. All The Subjects, After Having Been Informed About The Objective And Protocol Of The Study, Gave Their Consent And Volunteered To Participate In This Study. They Were Further Divided Into Two Groups Of 15 Each (N1=15; Male Fast Bowlers And N2 =15; Male Slow Bowlers). The T- Test Was Employed To Find Out The Significant Differences Between Male Fast Bowlers And Male Slow Bowlers. To Test The Hypotheses, The Level Of Significance Was Set At 0.05. The Results Revealed Significant Differences Between Male Fast Bowlers And Male Slow Bowlers On Body Weight, Height, And Body Mass Index.
Key Words: Fast Bowlers, Slow Bowlers, Body Weight, Height, Body Mass Index.

Introduction:
Millions Of People Play Cricket Across The World. In Many Countries, It Has Been Ranked As One Of The Top-Level Competitive Sport. With The Improvement In Sports Participation In The Recent Years, The Performance Standard Has Also Increased. Bowling, Batting And Fielding Are Three Fundamental Skills In Cricket. The Game Of Cricket Has Always Been Loved By The Entire Country. A Well-Balanced Team Usually Has Five Or Six Specialist Batsmen And Four Or Five Specialist Bowlers. Each Team Is Headed By A Captain Who Is Responsible For Making Tactical Decisions Such As Determining The Batting Order, The Placement Of Fielders And The Rotation Of Bowlers.Modern Demands In One Day Competitions, Especially For Training Of Fast Bowlers, Batsman, Fielders And Wicket-Keepers Adequate Emphasis Is Given For The Development Physical Characteristics. Therefore The Modern Trend In The Field Of Cricket Is To Assess The Related Components Successfully As A Part Of Total Body And Size Of Each Cricketer And Interpret How Far Each Of These Components Are Helpful In The Performance Of A Cricketer Under Match Condition. Today In The Modern Competitive Cricket Era Every Cricket Player Is In A Race To Excel Others, And Cricket Competitions Have Become Fundamental Mode Of Human Expression As They Are One Of The Very Important Functions By Which National And International Recognition And Prestige Is Gained. So In Cricket For The Better Performance A Cricket Player Required Ideal Body Weight And Good Height Along With The Strong Muscles.
Bmi Was Calculated By The Formula: Body Mass Index (Bmi) = Weight In Kilograms / (Height In Meters)^2. Weight Was Measured In Nearest A Kilogram And Height Was Measured In Nearest A Centimeter. Body Mass Index (Bmi): A Key Index For Relating Weight To Height. Bmi Is A Person's Weight In Kilograms (Kg) Divided By His Or Her Height In Meters Squared. The

National Institutes Of Health (Nih) Now Defines Normal Weight, Overweight, And Obesity According To Bmi Rather Than The Traditional Height/Weight Charts. Overweight Is A Bmi Of 27.3 Or More For Women And 27.8 Or More For Men. Obesity Is A Bmi Of 30 Or More For Either Sex (About 30 Pounds Overweight). A Very Muscular Person Might Have A High Bmi Without Health Risks. Bmi Is Simple Test You Can Complete On Your Own. The Results Are Help Full As You Monitor Your Progress Toward Improved Physical Fitness. Bmi Reflects Your Body Weight In Relationship To Your Height. According To The National Institutes Of Health, Bmi Can Help Classify Weight As Follows:

Under Weight = <18.5
Normal Weight = 18.5 -24.9
Over Weight = 25 - 29.9
Obese = 30 Or Greater

Objectives:

The Objective Of The Study Was To Compare The Body Weight, Height, Body Mass Index Between Male Fast Bowlers And Male Slow Bowlers In Cricket.

Method And Procedure:

Selection Of Subjects

Subjects For The Study Were Selected Purposively From The Cricket Coaching Centre, Jind (Haryana) Approved By Bcci. For The Purpose Of The Study 15 Male Fast Bowlers And 15 Male Slow Bowlers Age Ranged Between 16-19 Were Selected Randomly. The Male Fast Bowlers And Male Slow Bowlers Both The Groups Were Measured On The Body Weight, Height, Body Mass Index. Body Weight Measured In Kg, Height Measured In Centimeter. Bmi was calculated by the formula: Body Mass Index (BMI) = weight in kilograms / (height in meters) ^{2}.

STATISTICAL TECHNIQUES:

Descriptive statistics such as mean and standard deviation of the variables i.e. Body Weight, Height, BMI were calculated. Independent t-test was employed to compare between male fast bowlers and male slow bowlers. The level of significance was set at 0.05 level. The statistical analysis was conducted by using SPSS 16 software.

Results: Table: 1 Mean, Standard Deviation, Standard Error of the Mean, t- value and p- value of Fast Bowler and Slow Bowlers

Variables	Mean		SD		SEM		t- Value	P- value
	Fast Bowlers	Slow Bowlers	Fast Bowlers	Slow Bowlers	Fast Bowlers	Slow Bowlers		
BODY WEIGHT	61.13	60.40	8.81	6.95	2.27	1.79	0.253	.308
HEIGHT	1.767	1.727	5.09	5.60	1.31	1.44	2.051	.305
BODY MASS INDEX	19.37	20.39	2.07	2.53	.53	.65	- 1.206	.283

*Significant at 0.05 level Degree of freedom=28

BODY WEIGHT:Table no. 1 the descriptive statistics shows the mean and SD value of fast bowlers on the variable of body weight as 61.13 and 8.81 respectively. However, slow bowlers had mean and SD values as 60.40 and 6.95 respectively. The 't' - value 0.253 as shown in the table above was found statistically significant (P>.05).

HEIGHT:The descriptive statistics shows the mean and SD value of fast bowlers on the variable of height as 1.767 and 5.09 respectively. However, slow bowlers had mean and SD values as

1.727 and 5.60 respectively. The 't' - value 2.051 as shown in the table above was found statistically significant (P>.05).

BODY MASS INDEX:The descriptive statistics shows the mean and SD value of fast bowlers on the variable of BMI as 19.37 and 2.07 respectively. However, slow bowlers had mean and SD values as 20.39 and 2.53 respectively. The 't' - value -1.206 as shown in the table above was found statistically significant (P>.05).

The comparison of mean scores of both the groups has been presented graphically in figure 1

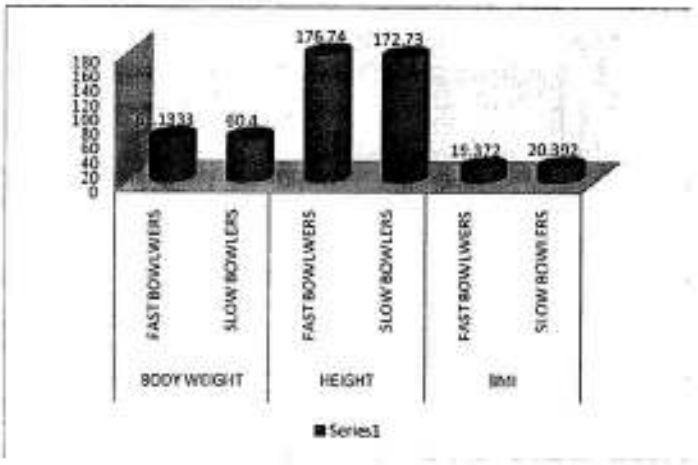


Figure 1 Graphical representation of mean scores of fast bowlers and slow bowlers on the variables i.e. Body Weight, Height, Body Mass Index

Discussion & Conclusion:

It is concluded from the above findings that the significant difference were found in the selected physical fitness variables i.e. body weight, height, body mass index between male fast Bowlers and male slow bowlers. Body weight and height of an individual are the important indicators of growth and development. Body weight and height can be monitor by the weight, height and age chart to help them at the right age for the growth or to maintain healthy body weight and to maintain best health for a cricket players. All the health problems and injuries mainly cause of overweight and obesity in cricket player in the batting bowing and fielding. So in cricket a cricket player required good height and ideal weight and well physically fit body

References:

Amarnath, M. (1996). *Learn to Play Good Cricket.* New Delhi: UBS Publishers Distribution Ltd

Chappell, G. (1978).*The Ashes.* United Kingdom: Bookbarn International.

Clark, M. (1996). Body armour for the body line. *The Australian Standards*, 22-23.

Kansal, D. K. (1996). Applied Measurement Evaluation & Sports Selections new delhi SSS Publication

Kaur, S and Walia,. Indarjit. (2007). Body mass index, waist circumference and waist hip ratio among nursing students. Nursing and Midwifery Research Journal, Vol -3.

Kumanyika, S.(1994). Obesity in minority population: an epidemiologic assessment. Obes Res; 2: 166-83.

Mathews, D.(1985). The physiological basis of physical Education and athletics. Philadelphia: W.B. Saunders Co., P.28.

Srivastava, A. K. (2007). *Teach Yourself Cricket.* New Delhi: Sports Publication.

World Health Organization.(1998). Obesity-preventing and managing the Global Epidemic: Report of a WHO consultation on obesity. Geneva: World Health Organization.

Analytical Study of Skill in Kabaddi

Dr. Tanuja S. Raut
Asstt. Professor, PGTD of Physical Education,
Sant Gadge Baba Amravati University, Amravati,
Maharashtra, India

Dr. Rajesh Kumar Das
Director of Physical Education and Sports,
B. S. Patel Arts, Comm & Sci. College,
Pimpalgaon Kale, Buldhana (MS)

Abstract
The purpose of the study was to analysis the bonus line crossing in kabaddi. Researcher had collected data on Kabaddi players participated in the Zone – C Inter Collegiate Kabaddi (Men) Tournament 2016, Akola. Out of 48 Teams participated only on 10 teams (3 match of each team) were analyzed were analyzed on different types of bonus line crossing, mainly five types of bonus line crossing were used i.e. Feinting bonus line crossing, Running bonus line crossing, Turn and bonus line crossing, Slide and bonus line crossing and Pivot and bonus line crossing. Subjects were selected with simple random sampling methods. Data were collected by using Performance Analysis Chart by observing the 30 matches played by different teams. Statistical Analysis was done on the Performance Analysis Chart and then further calculated by sum, mean and percentage. Result shows that highest percentage of bonus line crossing were attempt by G N A, Barshi Talki Team, in their total 96 raids they attempted 33 bonus line crossing with a percentage of 34.37% followed by Sinha College, Patur men's team with a percentage of 32.14%. The lowest being 8.65% by S.P.M. College, Chikhali. It also seen that out of 1008 raids from the thirty matches only 193 bonus line crossing were attempted i.e. 19.14% which is very low. Further out of total bonus line crossing it has been seen that raider frequently used Feinting bonus line crossing techniques which is much higher than the other techniques.

Introduction
The history of sports may extend as far back as the beginnings of military training, with competition used as a mean to determine whether individuals were fit and useful for service. Team sports may have developed to train and to prove the capability to fight and work together as a team (army). The history of sport can teach us about social changes and about the nature of sport itself, as sport seems involved in the development of basic human skills.
Every coaches, every athletes, every media, commentator and every fan will tell you that the fundamental elements of sports is skill. Athletes do not fail because their skill level is poor; they fail because their ability to perform the skill in competition condition is poor and which skill is exactly perfect in that situation is important for success in sports.
Kabaddi in recent year is has become a more dynamic, faster paced game. There is a gradual, but marked change in the style of the game during the past few years. The involvement of more techniques to the game to made it relatively easier for a player with more skill and weight to score point against better-built opponent.
To give good performance players must gain mastery over the skill perfection in technique is attained over a period of time and players have to pay at most attention at the time of practice. Every technique in the game is important and its application varies according to the situation. First the fundamental techniques are the basis for high level performance.
Offence in kabaddi is backbone of the game and the raider is the nucleus around which the entire game of kabaddi revolves. Raiding means an attack and it is the main tools of offence.
In raiding 'Bonus line crossing' plays a vital role in attack system. When there are 6 or 7 anties in court, if a raider manages to cross the bonus line successfully, he gets a one bonus point. In addition he can also score as many as point in that if not being caught. No doubt bonus is important for scoring in Kabaddi. Which type of technique is mostly used for taking bonus to find out this researcher carried out the study "Analytical Study of Skill in Kabaddi"

Materials And Methods
For the present study researcher had collected data on Kabaddi players participated in the Zone – C (Shankarlal Khandelwal Arts, Science & Commerce College, Akola) Inter Collegiate Kabaddi (Men) Tournament 2016-17, Akola. Out of 48 Teams participated only 10 teams (3 match of

each team) were analyzed on different types of bonus line crossing, mainly five types of bonus line crossing were used i.e. Feinting bonus line crossing, Running bonus line crossing, Turn and bonus line crossing, Slide and bonus line crossing and Pivot and bonus line crossing. Level of kabaddi players was not considered.

The investigator collected data by using Performance Analysis Chart and by seeing actual score sheets.

Statistical Analysis

Statistical analysis was done through Performance analysis chart and then further calculated by Chi square. Which were as follows:-

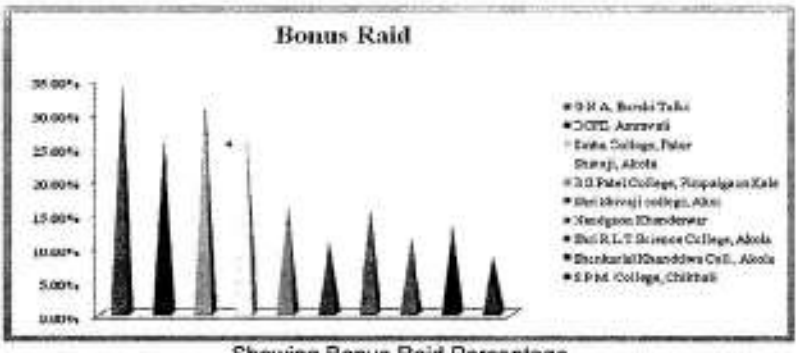
Table No – 1Showing different Types of Bonus Line crossing of different teams

Sr No	Name of the team	Raid	Bonus	%	Feinting and Bonus			Running and Bonus			Turn and Bonus			Slide and Bonus			Pivot and Bonus		
					AT	SU	UN	AT	SU	UN	AT	SU	UN	AT	SU	UN	AT	SU	UN
1	G N A, Barshi Talki	96	33	34.37	19	15	4	8	6	2	3	2	1	2	1	1	1	1	0
2	DCPE, Amravati	114	30	26.31	17	14	3	7	5	2	1	1	0	3	2	1	2	1	1
3	Sinha College, Patur	84	27	32.14	15	11	4	7	4	3	2	1	1	0	0	0	3	0	3
4	Shivaji, Akola	94	25	26.59	10	7	3	5	3	2	6	1	5	3	1	2	1	0	1
5	B S Patel College, Pimpalgaon Kale	98	16	16.32	8	5	3	2	0	2	5	2	3	1	0	1	0	0	0
6	Shri Shivaji college, Akot	112	12	10.71	6	4	2	1	1	0	3	1	2	1	0	1	1	1	0
7	Nandgaon Khandeswar	102	16	15.68	9	5	4	3	1	2	1	0	1	2	1	1	1	0	1
8	Shri R.L.T.Science College, Akola	106	12	11.32	5	3	2	2	0	2	1	1	0	1	1	0	3	2	1
9	Shankarlal Khandelwa Coll., Akola	98	13	13.26	7	2	5	2	1	1	1	0	1	2	0	2	1	0	1
10	S.P.M. College, Chikhali	104	9	8.65	3	0	3	2	0	2	3	2	1	1	1	0	0	0	0
	Total	1008	193		99	66	33	39	21	18	26	11	15	16	7	9	13	5	8

*AT – Attempt, SU - Successful Raid, UN - Unsuccessful Raid

From the above table it was revealed that highest percentage of bonus line crossing were attempt by G N A, Barshi Talki Team, in their total 96 raids they attempted 33 bonus line crossing with a percentage of 34.37% followed by Sinha College, Patur men's team with a percentage of 32.14%. The lowest being 8.65% by S.P.M. College, Chikhali.From the above table it is also seen that out of 1008 raids from the thirty matches only 193 bonus line crossing were attempted i.e. 19.14% which is very low.

Graph – 1



Showing Bonus Raid Percentage

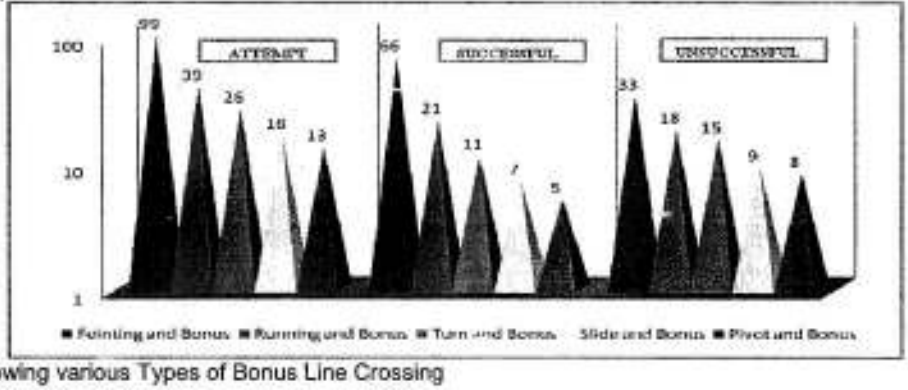
Table No – 2Showing various Types of Bonus Line Crossing

Raids	Feinting and Bonus			Running and Bonus			Turn and Bonus			Slide and Bonus			Pivot and Bonus		
	AT	SU	UN	AT	SU	UN	AT	SU	UN	AT	SU	UN	AT	SU	UN
	99	66	33	39	21	18	26	11	15	16	7	9	13	5	8

*AT – Attempt, SU - Successful Raid, UN - Unsuccessful Raid

From the above table, we can say that out of total bonus line crossing it has been seen that raider frequently used Feinting Bonus Line crossing techniques i.e. 99 Attempt and got success in 66 raids which is much higher than the other techniques followed by Running and Bonus Line crossing i.e. 39 Attempt and got success in 21 raids and the lowest is Pivot and Bonus Line crossing i.e. 13 Attempt and got success in 5 raids.

Graph – 2



Showing various Types of Bonus Line Crossing

On the basis of available score feinting and bonus line crossing techniques scores more point comparatively others bonus techniques, hence to see this difference is significant or not researcher calculated chi square.

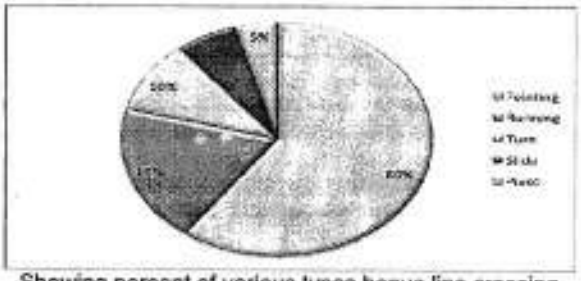
Table – 3:Chi square of various Types of Bonus Line Crossing

Bonus	Feinting	Running	Turn	Slide	Pivot	Total
fo	66	21	11	7	5	110
fe	22	22	22	22	22	
fo-fe	44	-1	-11	-15	-17	
fo-fe^2	1936	1	121	225	289	
fo-fe^2/fe	88	0.04545	5.5	10.2273	13.1364	
□□	116.909*					

df - 4, *Significant at 0.05 level is 9.49

Above table shows that total successful raid by feinting and bonus line crossing technique was 66 that are comparatively higher than that of running and bonus line crossing technique i.e. 21, turn and bonus line crossing technique i.e. 11, slide and bonus line crossing technique i.e. 7 and pivot bonus line crossing technique i.e. 5. We can observe that there is difference between various types of bonus line crossing technique to see this difference is significant or not researcher has calculated chi-square and it is found that there is significant difference between various types of bonus line crossing technique because the calculated value $\chi 2$ is 116.9 which is much higher than the tabulated value 9.49. That means feinting and bonus line crossing technique is significantly score more point than any other techniques.

Graph - 3



Showing percent of various types bonus line crossing

Conclusion

It is concluded that players are averse to bonus line crossing, may be that they does not want to take risk or not able to cross bonus line due to strong defense.

Raiders frequently used feinting and bonus line crossing technique and the success rate was 60 % which is much higher than the other techniques. This may be due to the fact that this technique is more effective, easier and space available for crossing the bonus line is more when compared to other methods.

It is time that bonus line rule be modified in order to have more attacks and catches which in turn the game will be faster, more scores and entertaining.

Coaches must train the raiders to get maximum advantage of the rule to secure more point for the team. It must be kept in mind that a player must learn and master the technique of creating gap at different zones to score bonus points.

Refrences

A. Palraj et. al., "Development of Match Analysis Sytem for Kabaddi Matches" IJAIR (ISSN: 2278-7844) pg. 36-43,

http://www.wgcoaching.com/sports-skills/

C.V Rao, Kabaddi native Indian sports, published in 1971, NIS Publication, Patiyala.

E. Prasad Rao, Modern Coaching in Kabaddi, Bud Publication New Delhi, Published in 1994.

https://en.wikipedia.org/wiki/History_of_sport

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp108-110
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Sprint Fatigue Index of Youth and senior Kabaddi Players

Mahesh R.Patil
Appa Saheb R.B.Garud Arts, Commerce, Science college
Shendurni Tal, Jamnder Dist
Jalgaon and Dr.Narayan Shankar Khadke Sadguru
Education Society College of Physical Education, Jalgoan

Abstract
The purpose of the study was to predict the players of kabaddi game from physiological variable like speed and fatigue index pilot study was conducted. Total 100 player selected in two categories were approached through coaches and managers of the team participating in the above mentioned tournaments. Scoring: The fatigue index is calculated by taking the average time of the first three trials and dividing it by the average time of the last three trials. This will give a value approximately between 75 and 95 % with the help of Graphical representation and statistical operation it could be conducted that Fatigue Index of Youth and Senior Kabaddi players was excellent but senior kabaddi player were much more sustainable than youth Kabaddi Players in sprint Fatigue Index.

Introduction
Kabaddi is basically an outdoor team game, played in the tropical countries of Asia. This indigenous game of India was adopted by other countries in Asia viz. Pakistan, Nepal, Bhutan, Bangladesh Sri lanka, Maldives, Malaysia recently by Japan and china. The excitement and thrill provided by the game has made it very popular and kabaddi is rightly called the 'Game of the masses', since spectators totally involve themselves and give the player a great deal of encouragement. The game requires no equipment whatsoever, and the rules of the game are very easy to comprehend. This is the reason for the popularity of the game in rural areas. Since rural youth in India can ill - afford sophisticated equipment demanded other sport. The game demands agility muscular co-ordination, breath holding capacity, quick response and a great deal of presence of Mind. Kabaddi was probably invented to develop responses by an individual against group attack and a group's response to an individual attack (15 - 5 – 15) kabaddi is a confrontational team game, played with absolutely no apparatus, in a rectangular court, either outdoor or indoor with seven players on the ground in each side

Origin
The sport has a long history dating back to Pre- historic time. It was probably invented to ward of group Attack by individuals and vice versa. The game was very popular in the southern part of Asia played in its different forms under different names. The Maharashtra has made and analogy of the game to surround all sites of Abhimanyu by the enemy .ie "Chakravyuyya"

Forms Of Kabaddi: Amar, Gemini, Sanjeevani
Statement of problem-The purpose of the study was to predict the player of kabaddi game from physiological variable fatigue index among state level senior and junior group of player
Hypothesis- it was hypothesis that senior player of Kabaddi might better than youth player predicted from physiological variable like figure index among state level Kabaddi player
Significant of the study-
This study will help the physical education teachers and coaches to design a specific program to identify the talents which are closely associated with the better Kabaddi performance.
Study will reveal the influence of physiological characteristic like fatigue index on the overall playing ability of kabaddi player.
This result might be utilized as screening instruments in analyzing and classification the Kabaddi Players.
The result of this study will help the young budding researchers to take up similar studies in other areas and discipline

Delimitation

The study was confined it to the following aspects.

This study was confined to only male inter district Kabaddi Players from Maharashtra state, India.

The subject for the present study have been delimited to the 100 state level Kabaddi Players only which include 50 seniors and 50 junior players.

The age of the subject ranged from 17 years and onwards.

The study was delimited to the fatigue index as independent variables.

Limitations

The variation in plane experience among players due to the fatigue index participation in tournament will be considered as limitations of the study.

Similarly the playing ability difference due to their Fatigue index in the coaching program if any will also be added to the limitations.

Fatigue Index is influenced by the factor like food, habits, lifestyle, climatic condition and other environmental factors could not be controlled which may influence the result and hence they may be considered as one of the limitations of the study.

The students were from different social culture and economical status which was considered as limitations for the study.

The response of the subject to the statement in the Fatigue index test would depend upon various factors such as understanding of the test and seriousness and sincerity of the subjects.

No specific motivational techniques were used to encourage the subject to attend their maximum performance during testing

Methodology

A pilot study was conducted. The players selected in two categories were approached through coaches and managers of the teams participating in the above mentioned tournament

Sprint fatigue test

Marker cones and lines are placed 30 M apart to indicate the sprint distance. Two more cons are place a further 10 meter along on each ends. At the instructions of the timer the subject places there foot at the starting line, then on 'go' two stopwatches are started simultaneously, and the subject sprints maximally for 30m, ensuring that they do not slow down before reaching the finish line. One stopwatch is used to time the sprint; the other continues to run. Record is to be taken for the time of the first sprint. The subject uses the 10 meter cone to slow down and turn. And return to the 30m finishing point, which then becomes the next start line. The next sprint will be in the opposite direction. Each 30m sprint start 30 seconds after the previous run started. This cycle continuous until 10 sprints is completed. Starting at 30 sec,1 min, 1.5 min,2 min etc. Afters the start of the first sprint.

Scoring: The Fatigue index is calculated by taking the average time of the first three trials and dividing it by the average time of the last three trails. This will give a value approximately between 75 and 95%

Table 1:- fatigue Index of youth and senior Kabaddi Players

Sr	Fatigue Index Senior	Youth Fatigue Index	T s_{cal}
2	Average 89.41	86.99	31.58
3	T_{table} value ∞; $N_1+N_2-2=50+50-2=98$ for 98DF Ttable=1.66at 0.05 Level of Significance	1.66	

T_{cal} value> T_{table} =1.66at 98DF 0.05 Level of Significance 31.58>1.66

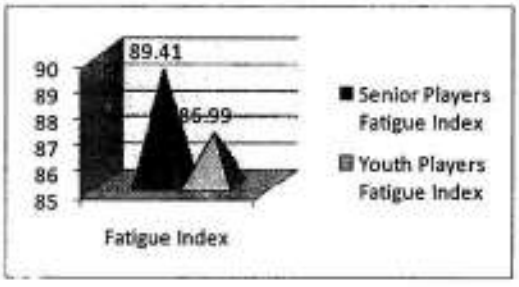
Null Hypothesis : (H_0):-Senior Kabaddi Players might have the same FATIGUE INDEX as the youth players .i.e.M_1-$M_2 \leq 0$

Alternative hypothesis :

(H_1):-Senior Kabaddi Players might differs in the FATIGUE INDEX compared to the youth players and senior players might be good in FATIGUE INDEX as compared to youth players .i.e. M_1-$M_2 \neq 0$ or M_1-$M_2 > 0$ T_{cal} value > T_{table}= 1.66at 98DF 0.05 Level of Significance 31.58>1.66Null hypothesis rejected. As null hypothesis is false means alternative hypothesis accepted T_{cal} value > T_{table} = 1.66 at 98 DF 0.05 Level of the significance 31.58> 1.66 Youth players might be good in FATIGUE INDEX as compares to senior players.

Result:-T_{cal} value > T_{table} = 1.66 at 98 DF 0.05 Level of significance 31.58>1.66 Which means that senior Kabaddi Players differs in the FATIGUE INDEX compared to the youth players and youth players will be good in FATIGUE Index as compared to the senior players.

Graph:- Average setting index of youth and senior Kabaddi Players



Above graph clearly indicates that fatigue index of youth and senior Kabaddi Players. The graph shows Fatigue index of senior Kabaddi Players wear comparatively good to their youth Kabaddi Players .No doubt both youth and senior Kabaddi Players had excellent fatigue index as per the norms of sprint Fatigue Index .Fatigue index of youth was 86.99 and senior Kabaddi Players was 94.41 the difference between these two counterpart Fatigue Index was found to be 2. 42 which is countable.

Conclusion

With the help of Graphical representation and statistical operations it could be concluded that fatigue index of the youth and senior Kabaddi Players was excellent but senior Kabaddi Players were much more sustainable than youth Kabaddi players in sprint fatigue index.

References

1A1- Huza H M, Alumuzaini, K S, A1- Refaee, S A, Sulaiman, M A Dafterdar, M Y, A1- Ghamedi, A, and A1-Khuraji, KN.(2001) Areobic and anaerobic power characteristics of Saudi elite soccer players.

JSport Med Phys Fitness 41:51-56.

2Apostolidis, N, Nassis, GP, Bolatoglou, T, and Geladas, ND. (2004) Physiological and technical characteristics of elite young basketball players.

JSport Med Phys Fitness 44:157-163

3Bar-Or. O. (1987) The Wingate Anaerobic Test: An Update on methodology, reliability, and validity. *Journal ofMed Phys Fitness* 4:381-394

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp111-116
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Physical Fitness Model For Kindergarten

Rumini[1], Winda Prasepty[2], Agus Widodo Suripto[1]
e-mail: rumini@mail.unnes.ac.id,
[1]Department of Physical Education Health and Recreation, Unnes, Indonesia
[2]Vocational High School Muhammadiya 2 Ajibarang, Indonesia

Abstract
The physical fitness condition of pre-school age children who sit in kindergarten (TK) bench is still unpredictable because this age child has not been introduced in certain physical exercises. In general, physical activity of children of kindergarten is a game activity that involves cognitive and psychomotor aspects to improve child's fitness.The purpose of this study is to describe the model of child fitness fitness of Kindergarten aged 4-6 years, and as a guide in detecting the level of physical fitness of kindergarten children. The measurement indicators include the test component (1) cardio respiration by measuring maximal oxygen consumption (Vo2 max) using Beep Test, (2) Morphological component by measuring body mass index (height and weight, (3) skeletal muscular component by measuring flexibility (V-stativity flexibility test), and (4) the components of motion skills (eye, hand and foot coordination test) by performing a throwing ball of reflective ball on the wall. Research method with Research and Development (R&D) model of Plomp research done year 2016. Research subjects were children of kindergarten aged 4-6 years of 333 kindergarten children from 18 schools in Kabupaten Banyumas.The results showed that maximal oxygen measurements (VO2max) were measured using a multistage fitness test with a distance of 10 meters in both criteria and (86.8%), measurement of flexibility using V-sit flexibility test with good and feasible criteria (87.3%), Body Mass Index (BMI)by weight calculation in kilogram divided by square height in square meter (kg / m²) and height with unit centimeter with good and decent criterion (98%), motor skill with motor coordination test of eye, hand and foot using Test ability to bounce the ball with both hands (87.5%). Thus, the development of physical fitness test measurement of 4-6 years old kindergarten students in Banyumas Regency has met the valid, reliable, and goodness of fit statistic criteria.Keywords: Model, development, assessment of Physical Fitness, Kindergarten (TK).

Introduction

Pre-school age is an important time to prepare children for formal schooling and is a critical time for child learning. School readiness, together with processes that have been designed to help the transition period, have a significant effect on how children adjust and develop. Ladd, Herald, & Kochel (2006) states that when a child enters formal school, they are exposed to the context of the physical environment, processes, types of interactions, social groups and rules that difier from experience gained before school entry.Physical activity is all the body movement produced by the muscular system that increases energy expenditure above normal physiological demand, while the sedentary behavior is characterized by low energy expenditure (Ortega, 2008). Physical activity refers to any muscle movement that requires substantial energy expenditure and has various sub categories such as recreational or sporting activities (Corbin, Pangrazi, and Franks, 2000). Associated with the motor physics of children of kindergarten age (TK), the target that must be achieved by the child is to apply as well as possible the ability and basic motion skills. The basic motion controlled by the child must be true in accordance with the function of his body and in accordance with the activities of everyday child life. Increased motor skills of children will improve the cognitive, emotional and social physiological, and physical fitness of children so that the child will grow into a smart, independent, and healthy person.

Physical activity not only affects the level of health but also on the cognitive, emotional, and social abilities of children based on various studies. Pagani and Messier (2012) argue that although in general the motor skills of children are often neglected in the concept of school readiness because schools generally focus only on the cognitive and emotional abilities of

children, but based on the results of the study it was found that motor skills (both gross motor and fine motor) Deals with other abilities that are a requirement of school readiness such as verbal skills, social, early mathematical skills, and behavioral skills. The same thing also conveyed from the results of research Gaines and Missiuna in Pagani and Messier (2012) which states that the low motor skills associated with speech and language skills in school-age children. The results showed that children who have motor limitations, they are less able to interact and move with other friends, consequently their communication skills become less developed.Cvejic, Pejovic and Ostojic (2013) suggested that the physical fitness component is cardiorespiratory component, a component that describes the total capacity of the cardiovascular and respiratory systems to supply oxygen during long-term physical activity. The musculoskeletal component includes a healthy balance of functions of the muscular system and the skeleton consists of strength, muscle endurance, muscle exclusivity, and flexibility.Ruiz et al (2009) suggests a morphological component referring to the relative position of muscles, fats, bones, and other vital components of humans. Furthermore, Du Toit (2011) states that the Body Mass Index (IMT) is a component of physical fitness associated with health that has been shown to have a significant negative correlation with achievement in children in several large-scale studies involving children of different ages.The results of Buck, Hillman, & Castelli (2008) and Chomitz, Siining, McGowan, Mitchell, Dawson, & Hacker (2009) studies show that a more fit child (measured by aerobic fitness test) has a score on an academic achievement test Better, and better EF scores than their less fit fellow peers. Neuro-electric studies on child cognitive activity show that more fit children (seen from larger fitness aerobics, based on maximal consumption of oxygen) are more accurate in performing EF tasks than with less fit peers (Hillman et al., 2009; Pontifex et al., 2011)Based on the above studies, it shows the importance of physical activity to support child fitness, which influences fitness activity as one of the main aspects affecting other aspects of child school readiness. Thus, the measurement of physical fitness in pre-school age children is very important, so schools and parents can monitor the child's fitness level, and determine the stimulation that fits the child's needs. Form of physical fitness test of kindergarten children aged 4-6 years should be adjusted to the growth and development of children.

Method

The research design used is design of assessment instrument development using research and development model (research and development). The research and development model is the Plomp model. Measurement of physical fitness in kindergarten children (TK) done in several stages. Phase I preparation of measurement components and indicators of each component, and determine the form of measurement activities to be performed. This is because physical fitness testing in pre-school age children has not been widely developed, and the measurement activity must be adjusted to the stage of physical and motor development of children. Phase II was tested on the design of the measurement model and conducted two trials, i.e. on small scale samples (phase I trial) and on large scale samples (phase II trial). The first phase trial aims to know the validity and reliabilities and legibility of the instrument, phase II to get a picture of model physical fitness of children on each component.

Subject

The subjects in this study were kindergarten children aged 4-6 years in Banyumas regency. The subjects of the limited sample trial (phase I trial) were carried out in 2 (two) schools of kindergarten, originating from urban areas (TK Sinar Mentari Dukuh Waluh) and kindergartens from rural areas (TK Aisyiah Bustanul Athfal Ajibarang Kulon). Field trials on large-scale samples (phase II trials) include 18 (eighteen) kindergarten schools with 7 (seven) kindergartens in the city area and 11 kindergartens in the village area. Research Stages Pre-Measurement In this pre-measurement phase, the research team collected information to identify issues related to the physical fitness test instrument of pre-school children, through the identification and review of physical fitness testing instruments for pre-school used in schools (especially in kindergarten). This information was collected for 1 month through interviews to some kindergarten principals and through focus group discussions with fitness experts, early childhood education experts, and some early childhood education teachers.

Instrument

Preparation of measuring instruments in this phase begin to design a physical fitness test device for pre-school children who want to be developed. Beginning with the formulation of physical fitness components and determining the measurement indicators of each component, then determine the instrument to be used in measuring the indicator. The phase of component

formulation, and the determination of the indicators and instruments is done through expert judgment involving experts in physical fitness and biomechanics. The physical fitness test instrument of preschoolers consists of 1) cardiorespiratory component, 2) musculoskeletal components, 3) morphological components, and 4) a component of motion skills. Further measurement indicators of each componept are: cardiorespiratory component, the indicator to be measured is maximal oxygen consumption; Musculoskeletal component, which will be measured is flexibility; The morphological component to be measured is the body mass index; Motor skill component to be measured is motor coordination. Maximum oxygen consumption (VO2max) was measured using adaptation of multistage fitness test or better known as beep test (Mackenzie, 2005) which was then modified. Variation of beep test i.e. at distance, which usually use 20 meter replaced with 10 meter. This test consists of 23 levels where each level is approximately for one minute. Each level consists of a 10-m back run circuit where the initial velocity runs 8.5 km / h and increases 0.5 Km / h in each level.Flexibility is measured using V-sit flexibility test (Mackenzie, 2005). The purpose of this test is to monitor the flexibility of the back muscles and hamstring muscles. The tool used to measure this flexibility is using a table and a ruler.

Body Mass Index

Body Mass Index (BMI) is measured by measuring body weight and measuring child's height. Measurement using the unit centimeter meter to know the height and weight of kilograms of gram unit to know the weight. Vale et al (2015) explains how to measure body mass index (BMI). BMI is measured by weight calculation in kilograms divided by the square of height in square meters (kg / m^2). BMI for adults and children is calculated the same way, but the results are interpreted differently. For adults, the BMI classification does not depend on age or gender. For children and adolescents aged between 2-20 years, BMI is interpreted relative to the age and sex of the child, since the amount of changes in body fat by age varies by sex.The motor skills of the child will be known by performing motor coordination tests of the eyes, hands, and legs using the ability test of the ball with both hands. The child is asked to reflect the ball with both hands in the silent position as much as possible the child can perform. The ball used is a ball with size 4 made of rubber, lightweight, and safe to use by children.Test Stage Prior to instrument testing, the researcher first validated the legibility of the instrument, where the ready-made instruments were given to early childhood education practitioners such as kindergarten teachers, head of kindergarten and IGTK board to be understood and tested on small-scale samples. The objectives of this legibility validation are to: (1) know the shortcomings and advantages of the instrument, (2) to know the degree of difficulty and understanding of the instrument intent, and (3) to know the effectiveness of the use of language in the instrument.

Phase I

The first phase trial consisted of two sessions. In this Phase I trial, the instrument of physical fitness test for kindergarten children aged 4-6 years was tested on a limited sample of 80 respondents in two (2) kindergarten schools which became the subject of first phase trial of TK Sinar Mentari Dukuh Waluh District of Purwokerto Timur and Aisiyah Kindergarten 2 Ajibarang Kulon Ajibarang District. Phase I trials through two sessions with the same subject intend to see the validity, reliability, and legibility of a physical fitness level test instrument of children of 4-6 years of age to be revised for the results.Revisions of the test instrument include: (1) revisions to weaknesses on test norms and instrument items, (2) revisions to instrument items declared invalid and unreliable. Revised guidelines on the use of test instruments which include: (1) revision of the instrument implementation procedures for the physical fitness test of kindergarten children aged 4-6 years; (2) revision of norms of physical fitness tests; and (3) revision of data analysis of physical fitness test results of children. The test of product I that has been done to the small scale has produced a valid and reliable instrument.

Phase II

The revised product was then tested in phase II with a larger sample, with 333 subjects from 18 kindergartens in urban and rural areas in Banyumas District from 2 to 20 May 2016. Trial of physical fitness test instruments Kindergarten children aged 4-6 years' phase II involves 20 kindergarten teachers. The kindergarten teacher is given guidance before the second stage of the instrument product trial.

The purpose of large-scale instrument trial (phase II trial) is to get an idea of the fitness level of each component in children aged 4-6 years.

\Result

VO_2max (Cardiorespiratory)

Cardiorespiratory component test results in the form of VO_2max test results on 333 kindergarten children aged 4-6 years in 18 kindergartens located in Banyumas Regency are as follows.

Table 1. Result ofVO_2max

No	Interval	Frequency	Percentage	Criteria
1	< 24,057	267	80.2	Bad
2	24,057 – 26,779	57	17.1	Very Poor
3	26,780 – 29,502	5	1.5	Poor
4	29,503 – 32,225	0	0.0	Good
5	32,226 – 34,948	4	1.2	Very Good
Jumlah		333	100	

Musculoskeletal

Musculoskeletal component Musculoskeletal component test results in the form of flexibility to 333 kindergarten children aged 4-6 years in 18 kindergartens located in Banyumas Regency are as follows.

Table 2. Flexibilities

No	Interval	Frequency	Percentage	Criteria
1	< 4	5	1.5	Bad
2	4 – 9	56	16.8	Very Poor
3	10 – 15	116	34.8	Poor
4	16 – 21	123	36.9	Good
5	22 – 27	33	9.9	Very Good
Total		333	100	

Morphological

The results of morphology component test in the form of body mass index (BMI) on 333 kindergarten children aged 4-6 years in 18 kindergartens located in Banyumas Regency are as follows.

Table 3. Body Mass Index (BMI)

No	Interval	Frequency	Percentage	Criteria
1	< 10	1	0.3	Bad
2	10 – 15	267	80.2	Very Poor
3	16 – 21	61	18.3	Poor
4	22 – 27	3	0.9	Good
5	28 – 33	1	0.3	Very Good
Jumlah		333	100	

Motor Skills

Dribble motor skills test results on 333 kindergarten children aged 4-6 years in 18 kindergartens located in Banyumas Regency are as follows.

Table 4. *Dribble*

No	Interval	Frequency	Percentage	Criteria
1	< 1	9	2.7	Bad
2	1 – 3	210	63.1	Very Poor
3	4 – 6	72	21.6	Poor
4	7 – 9	40	12.0	Good
5	> 9	2	0.6	Very Good
Jumlah		333	100	

Based on result of data analysis by using z-test value of total item to 333 children from each component as described above, hence result of physical fitness test in kindergarten children aged 4-6 years in 18 kindergarten residing in region of Banyumas Regency is as following.

Table 5. result of physical fitness (4-6 years old) Kabupaten Banyumas

No	Interval	Frequency	Percentage	Criteria
1	< 0	219	65.8	Bad
2	1 – 5	81	24.3	Very Poor
3	6 + 10	29	8.7	Poor
4	11 – 15	3	0.9	Good
5	> 15	1	0.3	Very Good
Jumlah		333	100	

Discussion

The development of the physical fitness test instrument of kindergarten children aged 4-6 years is realized continuously in accordance with the dynamics that occur in the field. Measuring child's fitness at an early age is important because the physical fitness itself affects other aspects such as school readiness as well as having an impact on cognitive function in children. To detect the physical fitness of kindergarten children, the instrument of physical fitness test for kindergarten children aged 4-6 years needs to be continuously improved in terms of both test instrument constructs and in the test execution process. In the process aspect needs to be done carefully in its application so that accurate results can be obtained for use in detecting physical fitness of kindergarten children aged 4-6 years.The physical fitness test instrument of 4-6 years old kindergarten children on the aspect of the results, is expected to provide accurate information about the level of attainment of physical fitness of kindergarten children aged 4-6 years. Accuracy of the information obtained becomes the basis for the school, especially teachers to make the program of physical motor development of children kindergarten aged 4-6 years according to the child's growth and development. Accurate information is important because inaccurate information about the physical fitness level of a 4-6-year-old kindergarten raises disappointment for parents, and may even harm a child in the future.

The kindergarten teacher acts as the spearhead of the child's physical fitness test at a kindergarten school, needs to have skills in doing tests and measurements to the child. Teachers must understand the facts that describe the level of physical fitness of the child so that the child can be detected the level of health properly. Teachers should document the facts about the child's physical fitness level that can be the basis for determining the child's physical motor development program. Examination of a physical fitness test document of a 4-6 years old kindergarten child is needed to determine whether the child has been eligible to achieve a certain level of development or not. The kindergarten teacher must understand the criteria used in the child's physical fitness achievement test and accustomed to using the test kit. The accustomed teacher will be able to perform the test process well and can provide an objective assessment of the results of the results of the child's physical fitness test results. Therefore, a comprehensive test instrument is required regarding the attainment of physical fitness level of kindergarten children.

Children's physical fitness tests should not be done just once as the kindergarten development tests that have been done. In addition to its comprehensive and sustainable nature, physical fitness testing should also be done carefully by involving various elements of the school, especially teachers and children to ensure the objectivity of the test results. The demands for the diversity of the child's physical fitness level test system are important considering that using a variety of physical fitness tests will better ensure the quality of the test results. The construct of this developed instrument is one of the important variations of the test instrument that seeks to reduce the teacher's subjective in assessing the child.Based on the analysis of children aged 4-6 years in Banyumas district, it can be concluded that the level of physical fitness of children on average is still very low, thus requiring further stimulation that can improve the physical fitness of children for the better. The average degree of child flexibility that is a musculoskeletal component looks better than that of the other components. While the lowest component in the average child is the maximum consumption of oxygen or vo2max which is a component of cardiorespiratory. The high degree of flexibility in the average child is consistent with the theory of physical motor development that states that the child's body is more flexible or flexible than the adult body (Hurlock, 2000). Furthermore, by looking at the low level of cardiorespiratory in children, it can be explained that this is suspected to affect the ability of other components. Children with low cardiorespiratory levels exhibit lower respiratory capacity (low oxygen consumption) as well. So this causes the child's activity level is also low because the child becomes easily tired. This low

level of child activity causes the body mass index to be unbalanced and the child becomes lacking good coordination skills.

Conclusion

Physical fitness tests for children aged 4-6 years developed include cardiorespiratory, musculoskeletal, morphological, and motor skills components in a single unit can detect the physical fitness of kindergarten children aged 4-6 years. The results of the measurement of 333 kindergarten children in Banyumas district showed that the physical fitness level of children is in very low category, so there is a need to increase the stimulation of the development of physical fitness level for preschool children to get better. Learning from the psychomotor aspect needs to be taught regularly and programmed to get better physical fitness for children to be more active and creative.

Reference:

Best, J. R. (2010). Effects of physical activity on children's executive function: Contributions of experimental research on aerobic exercise. *Developmental Review, 30*(4), 331–351.

Cech, D. J., & Martin, S. T. (2002). Functional movement development across the life span. *Elsevier Health Sciences.*

Council of Europe (1983). *Testing physical fitness EUROFIT experimental battery: provisional handbook.* Strasbourg: The Council.

Corbin, C. B., Pangrazi, R. P., & Franks, B. D. (2000). Definitions: Health, Fitness, and Physical Activity. *President's Council on Physical Fitness and Sports Research Digest.*

Cvejic, D., Pejovic, T., Ostojic, S. (2013). Assessment of physical fitness in children and adolescent. *Physical education and sport*, vol 11 no 2

Diamond, A. (2012). Activities and Programs That Improve Children's Executive Functions. Current Directions in Psychological Science, 21(5), 335–341.

Diamond, A., & Lee, K. (2011). Interventions Shown to Aid Executive Function Development in Children 4 to 12 Years Old. *Science*, 333(6045), 959–964.

Davidson S, Passmore R, Brook JF, Truswell AS (1979). Human Nutrition and Dietetics, 7th edition, New York, Livingstone, Churchill, pp. 86—235.

Gallahue dan Ozmun. (1998). *Understanding Motor Development.*

Hillman, C. H., Pontifex, M. B., Raine, L. B., Castelli, D. M., Hall, E. E., & Kramer, A. F. (2009). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. Neuroscience, 159(3), 1044–1054.

Howley, E. T., & Franks, B. D. (1992). Health Fitness Instructor's Handbook (2nd ed.). Champaign, IL: Human Kinetics.

Ladd, G. W., Herald, S. L., & Kochel, K. P. (2006). School readiness: Are there social prerequisites? *Early Education and Development*, 17, 115–150. doi:10.1207/s15566935eed1701_6

Lumintuarso, R. (2013) *Teori Kepelatihan Olahraga.* Jakarata : Lankor

Ortega, F. B., Ruiz, J. R., Castillo, M. J., & Sjöström, M. (2008). *Physical fitness inchildhood and adolescence: a powerful marker of health.* International Journalof Obesity, 32(1), 1e11.

Pate, R. R. (1983) A new definition of youth fitness. *Physician Sports Med* 11: 77-83.

Hillman, C. H. (2011). Cardiorespiratory fitness and the flexible modulation of cognitive control in preadolescent children. *Journal of Cognitive Neuroscience*, 23(6), 1332–1345.

Ruiz, J.R., Castro-Piñero, J., Artero, E.G., Ortega, F.B., Sjöström, M., Suni, J., et al. (2009). Predictive validity of health-related fitness in youth: a systematic review. *British Journal of Sports Medicine*, 43 (12), 909-923.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp117-118
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Comparative Study of Speed among Volley Ball Players and Kabbadi Players of Mahabubnagar District

Dr.K.Satya Bhaskar Reddy
Lecturer in Physical Education, Surya Laxmi Aided Degree College
Narayanpet, T.S.

Introduction:

Speed is not just how fast someone can run ,but is dependent on their acceleration maximal speed of movement, and also speed maintenance.**Volleyball** is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules.[1] It has been a part of the official program of the Summer Olympic Games since 1964.

The complete rules are extensive. But simply, play proceeds as follows: a player on one of the teams begins a 'rally' by serving the ball (tossing or releasing it and then hitting it with a hand or arm), from behind the back boundary line of the court, over the net, and into the receiving team's court. The receiving team must not let the ball be grounded within their court. The team may touch the ball up to 3 times but individual players may not touch the ball twice consecutively. Typically, the first two touches are used to set up for an attack, an attempt to direct the ball back over the net in such a way that the serving team is unable to prevent it from being grounded in their court.The rally continues, with each team allowed as many as three consecutive touches, until either (1): a team makes a *kill*, grounding the ball on the opponent's court and winning the rally; or (2): a team commits a *fault* and loses the rally. The team that wins the rally is awarded a point, and serves the ball to start the next rally. A few of the most common faults include:

- causing the ball to touch the ground or floor outside the opponents' court or without first passing over the net;
- *catching and throwing* the ball;
- *double hit*: two consecutive contacts with the ball made by the same player;
- four consecutive contacts with the ball made by the same team;
- net foul: touching the net during play;
- foot fault: the foot crosses over the boundary line when serving.

The ball is usually played with the hands or arms, but players can legally strike or push (short contact) the ball with any part of the body.

Kabaddi is a contact team sport that originated in Indian subcontinent in Tamil Nadu. It is popular in South Asia and is the state game of the Indian states of Andhra Pradesh, Telangana, Tamil Nadu, Maharashtra, Bihar and Punjab. It is also the national sport of Bangladesh.[1]

Two teams compete, each occupying its own half of the court. They take turns sending a "raider" into the opposing team's half and earn points if the raider manages to touch opposing team members and return to the home half, all while taking only a single breath. If however the raider is tackled and prevented from returning, the opposing team earns the point.

The Purpose of the Study is to find out the speed among volley ball and Kabbadi Players of Mahabubnagar District.

Methodology:

The sample for the present study consists of 20 Male Volley Ball Players and 20 Male Kabbadi Players between the age group of 18-22 Years those who have participated in the Sports Events.To assess the speed the 50 M Run were conducted among Volley Ball Players and Kabbadi Players by the well qualified technical officials of athletics.

50 M Run:

Discussion

This study shows that volley ball players are having the better speed compare to Kabbadi players. The Mean Values of 50 M Run of volley Ball Players is 7.23 and Compare to Kabbadi Players is 7.73.The Present study assessed that the speed of volley ball players are better than the Kabbadi Players

Table-I:Mean values and Independent Samples Test of 50 M Run between Volley Ball Players and Kabbadi Players

Variables	Group	Mean	SD	t	P - Value
50 M Run	Volley Ball Players	7.23	0.262	4.58	0.000
	Kabbadi Players	7.73	0.408		

*Significant at 0.05 level

In Table –I the Mean Values of 50 M Run of Volley ball Players is 7.23 and Kabbadi Ball Players is 7.73.Speed required for volley Ball Players is forward,backward and sideward along with the reaction ability, hand and eye co-ordination to play well in the match.

Conclusion:

It is concluded that volley ball players are having better speed than Kabbadi players. This study also helps the physical educators and coaches to improve their training regime to excel in volley ball and Kabbadi Players.

Recommendations:

It is recommended that Motor qualities development coaching must be given by Coaches to promote speed, endurance, strength, agility etc. among the basket ball and hand ball players. Similar studies can be conducted among female players and in other sports and games. This study also useful to develop the speed among volley ball and kabbadi Players.

References:

Wikipaedia volley ball and kabbadi

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp119-120
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Effect of Surya Namaskar Exercises on Physiological Variables of College Students

Mahesh Koram
Physical Director, Adarsha DEd College
Narayanpet.Telangana State

Introduction:

Yoga is a group of physical, mental, and spiritual practices or disciplines which originated in ancient India.

In Sanskrit, the word yoga comes from the root *yuj* which means "to add", "to join", "to unite", or "to attach" in its most common senses. By figurative extension from the yoking or harnessing of oxen or horses, the word took on broader meanings such as "employment, use, application, performance"

Surya Namaskara is a Yoga warm up routine based on a sequence of gracefully linked asanas. The nomenclature refers to the symbolism of Sun as the soul and the source of all life. It is relatively a modern practice that developed in the 20th century.

Sūrya Namaskāra may also refer to other styles of "Sun Salutations". A yogi may develop a personalized yoga warm up routine as *surya-namaskar* to precede his or her asana practice.[1]

Benefits of Surya Namaskar

A. It improves the blood circulation of all the important organs of the body.
B. Improves the functioning of the heart and lungs.
C. Strengthens the muscles of the arms and waist.
D. Makes the spine and waist more flexible.
E. Helps in reducing the fat around the abdomen and thus reduces weight.
F. Improves digestion.
G. Improves concentration power.

Objectives Of The Study:

The Study is to find out the effect of Surya Namaskars on physiological aspects of the College Students of Narayanpet in Telangana State.

Methodology:

SAMPLE OF THE STUDY:

The study was formulated based on the Single Experimental Group Design. The samples were collected from the 50 college students of Narayanpet between the age group of 18-22 Years. Surya Namaskaras Exercises Training is given for six weeks on alternate days. Pre Test and Post Test is conducted on Pulse Rate and Breath holding..

Results & Discussions

Table – 1 Showing the Mean Values, SD, df, 't' value and p-value between pre-test and post of College Students in relation to their pulse rate.

Sl. No.	Subjects	N	Mean	S.D.	df	't' ratio	P value
1.	Pre - test	50	102.18	1.26	98	2.46	0.00
2.	Post – test	50	128.67	2.43			

DiscussionTable-1 shows the mean, standard deviation, degrees of freedom, t-value and significance between pre-test and post- test of College Students in relation to their **pulse rate**. The mean value of Pre-test was 102.18, standard deviation was 1.26 and the mean value of post-test was 128.67 and standard deviation was 2.43. The obtained t-ratio was 2.46, which was found to be significant at 0.00 levels.

Table – 2 Showing the Mean Values, SD, df, 't' value and p-value between pre-test and post Test of College Students in relation to their Breath Holding

Sl. No.	Subjects	N	Mean	S.D.	df	't' ratio	P value
1.	Pre – test	50	34.96	3.66	98	2.68	0.01
2.	Post – test	50	31.85	1.78			

Table -2 shows the mean, standard deviation, degrees of freedom, t-value and significance between pre-test and post- test of College Students in relation to their **Breath Holding**. The mean value of pre-test was 34.96, standard deviation was 3.66 and the mean value of post-test was 31.85 and standard deviation was 1.78. The obtained t-ratio was 2.68, which was found to be significant at 0.01 levels.

Conclusion:

There is a significant effect of Suryanamaskars on the Physiological Abilities like Heart Rate and Breath holding capacity of the College Students. Hence it is recommended that Surya Namaskars are effective for development Physiological capacities of the students.

References:

Wikipaedia, Yoga
Wikipaedia, Suryanamaskar
International Journal of Health, Physical Education and Computer Science in Sports.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp121-126
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Effectiveness Of The Rehabiliation Program Using The Acupressure On The Electrical Activity Of The Spine Muscles Of The Handball Players With Lower Back Pain

Dr. Nasser Khalid Abdul Razzaq
Dr. Khaleel Ismael Attallah
Seezar Suheir Ibrahim
Research Scholar

Abstract

To describe current physiotherapy practice for injured workers with low back pain (LBP). A chart audit of discharged workers was conducted over three episodes of care: 4–6 weeks (T1), 6–8 weeks (T2), and 8–10 weeks (T3) post-injury. The prevalence and reproducibility of parameters for common interventions were calculated as the percentage of active charts over time. Focus groups were used to validate audit results and deepen our understanding of practice. The research will present the best results of interferential mckenzie, tens mckenzie exercise on lower back pain injury in power lifting players. In all, 4 charts were audited. The most prevalent interventions were (1) for manual therapy, joint mobilization and traction; (2) for electrophysical agents (EPAs), heat, ultrasound, and interferential therapy; and (3) for exercise, core stabilization exercises. Transcript analyses revealed that participants viewed injured workers with LBP in a positive light, emphasized the importance of physiotherapy, and discussed LBP in five themes: time frame, non-specific diagnosis, mixed client outlook, change in pain presentation, and the transition from a passive to a more active treatment approach. The pattern of decreasing passive and increasing active interventions is consistent with the focus-group participants' description of how they approach treatment of clients with SA-LBP. Also noted was a higher prevalence of interventions poorly supported by evidence and lower prevalence of interventions well supported by evidence.

Introduction

Handball is a team sport played by two male or female teams. Handball is a combination of Basketball, Soccer and Netball. It is played indoors on a court about the size of two basketball courts. At the each end of the court is a net which is 9 feet wide by 6 1/2 feet high. The object of the game is simply to score more goals than the other team. The ball is usually moved around the court by passing. However, the ball can be dribbled, but like in basketball you cannot double-dribble. You can dribble for as long as you want (though you risk getting the ball taken away). You can only take at most three steps after catching a pass. You cannot hold the ball for more than three seconds without passing it. If a player is fouled he is allowed a free zone 9 feet wide to restart play. Each team has 12 members, two of which are goalkeepers. 7 team members' play and substitutions can be made at any time. There is a halfway line on the court. There is also a safety area that extends about 20 feet around the goal. A player is not allowed to be in this area. Shooters may leap into this area if they shoot before they land.If there is a penalty a player is warned. The next two penalties are two-minute suspensions. After that players can be disqualified (which means they are removed, but can be replaced after two minutes). They can also be excluded, which means they cannot be replaced and the team will have one less player on the court.

Each goal counts as 1 point. Usually 20 goals are scored in a game. The games consists of two 30 minute halves with a 10 minute rest period in between the halves. The handball weighs 16 ounces (13 ounces for women) and is about the size of a cantaloupe.

PARITICIPANTS:

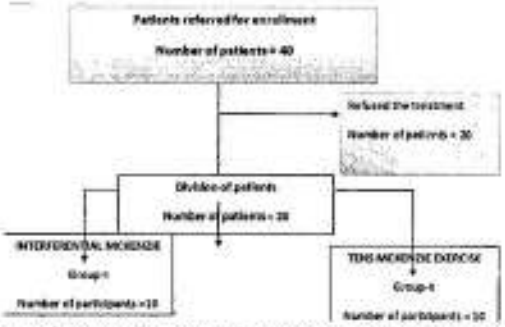
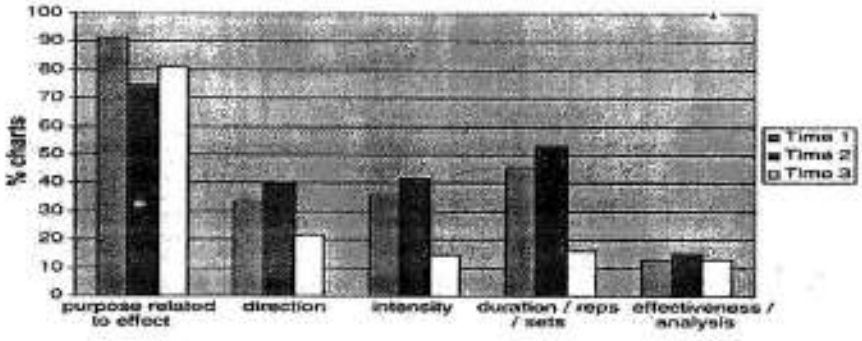


Figure 1: Flow diagram of the study process, indicating patient selection.

Table 1: Participant's general characteristics and baseline values of outcome measures

Variable	INTERFERENTIAL MCKENZIE group (n = 10)	TENS MCKENZIE EXERCISE group (n = 10)	P value[f]
Age (years)[a]	32 (8.6)	35 (9.7)	0.115
Gender (m:f)	10	10	0.311
Weight (kg)[a]	79 (14.6)	81 (14.5)	0.646
Height (cm)[a]	176 (11.4)	174 (8.8)	0.626
BMI (kg/m^2)[a]	25.7 (4.5)	26.5 (3.5)	0.318
Smoker (yes:no)	4	5	0.631
Alcohol (yes:no)	3	8	0.144
Use of pain medication (yes:no)	6	4	0.796
Life event in last 2 years (yes:no)	9	9	0.631
Employed (yes:no)	10	10	0.261
Baseline values outcome measures			
VAS low back pain	61 (24.6)	53 (26.4)	0.277
VAS right leg pain	37 (28.3)	33 (30.2)	0.668
VAS left leg pain	27 (25.2)	31 (28.5)	0.514
Tampa score[e]	39 (7.4)	38 (7.8)	0.704

Chart Audit Analyses There was > 90% agreement of the occurrence or non-occurrence of data points between raters. During data collection, periodic checks were made to ensure the maintenance of > 90% interrater agreement. Data were compiled according to frequency of occurrence at each of the three time periods and calculated as either a percentage of all active charts or, when examining a specific aspect of a group of interventions, the percentage of the subset of charts with that group of interventions (e.g., of the charts indicating exercises, % of charts with exercises that indicated core stabilization exercises).



Results

The presentation of the results begins with focus-group participants' descriptions of SA-LBP; this is followed by the chart-audit findings, integrated with additional focus-group findings. Analyses of the transcripts revealed that participants viewed an injured worker with SA-LBP in a positive light. Their descriptions illustrated the importance of physiotherapy in the presence of uncertainty from both the physiotherapist and client perspectives. These ideas are represented by the following five themes:

Time frame: It was consistently noted that this is an optimal time to intervene. Participants interpreted "subacute" as meaning that the client's pain was not yet chronic, and they considered that there was potential for a positive outcome: When I hear "subacute," my first thought is time, a time frame ... time to jump in.

Non-specific diagnosis: In the subacute phase, clinicians require more information to determine the underlying cause(s) prior to establishing a treatment plan:

it's very general, as opposed to kind of having [a specific diagnosis] ... you like to have an idea of what tissue is involved.

Mixed client outlook: Clients with SA-LBP express both positive and negative attitudes toward recovery. For example, a client who is showing improvement is likely to be positive:

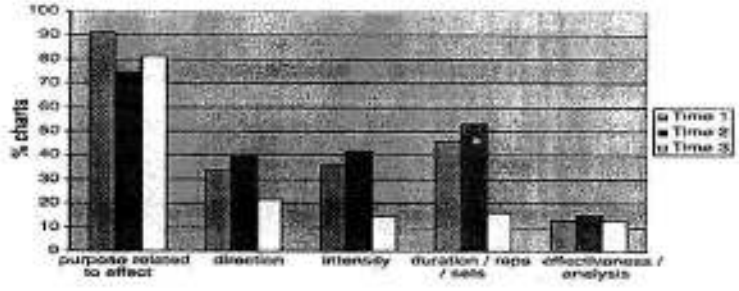
Manual Therapy

The number of charts documenting manual therapy was 92 at T1, 79 at T2, and 69 at T3. On the charts documenting manual therapy, the two techniques most frequently charted were joint mobilization (39.1% at T1, 36.7% at T2, 42.0% at T3) and traction (32.6% at T1, 20.3% at T2, 29.0% at T3, including both mechanical and manual traction;). The soft-tissue techniques—massage, neural tissue mobilization, myofascial release, and muscle energy techniques (MET)—were less frequently noted (varying from 4–14% of charts with manual therapy, T1–T3).

An examination for charting quality revealed that less than half the charts gave intervention details adequate to reproduce the technique. Participants agreed that the results reflected their practice. Regarding documentation, one said,

Figure 4.1: Percentage of active charts over time that included manual therapy interventions, according to specific technique; note that some charts recorded more than one manual therapy technique

Figure 2: Percentage of active charts that included manual therapy as an intervention that had documented parameters adequate for reproduction (number of active charts: $n = 92$ at T1; $n = 79$ at T2; $n = 69$ at T3)



Another participant, with whom others agreed, said, There really is no need if you are mobilizing I will feel how it is you know, you feel it, and you know when to stop that day you remember from day to day once you are at that joint again if there is someone that you are really struggling with, and your manual therapy techniques aren't working, you are going to write exactly ... be more specific with your grades so that you can say, "Okay, you tolerated that. Let's try a little bit more." Or, "let's change my intervention."Changes in dosage might not be charted; a change to another intervention is more likely to be charted. Another participant provided a rationale as to why change in parameters is seldom charted: It's just the demand ... you feel that if you ever did a change, you would continually be doing paperwork. You see your patient and how they are presenting that day, knowing how you treated them last time, and then on the spot you just change. But that is not enough to make you go do the paperwork because that may take you longer than it did to do the technique. So it ends up bogging you down.

ELECTROPHYSICAL AGENTS

With respect to the use of EPAs, the three most frequently documented agents were heat (56.7% at T1, 44.1% at T2, 46.2% at T3), ultrasound (US; 51.2% at T1, 36.0% at T2, 32.4% at T3), and interferential therapy (IFT; 47.0% at T1, 29.8% at T2, 35.9% at T3. As the percentages indicate, the use of all three agents decreased from T1 to T3.

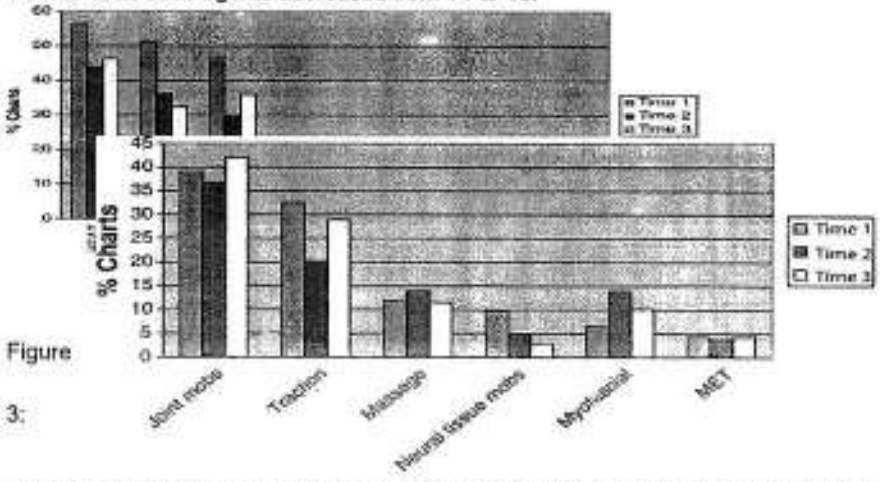


Figure 3:

Percentage of active charts that included electrophysical agents over time (IFT = interferential therapy; NMES = neuromuscular electrical stimulation)

Less than 18% of charts indicated the use of other EPAs (cold, TENS, NMES, acupuncture, LLLT). On the charts documenting EPA use, adequately documented parameters (e.g., intensity, frequency, electrode location) for heat, US, and IFT decreased across time from 70% to 35% of charts.

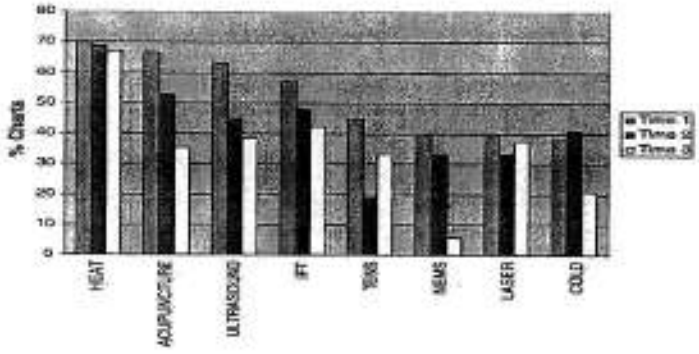


Figure 4: Of charts that included electrophysical agents, percentage with documented parameters adequate for reproduction (IFT = interferential therapy; TENS = transcutaneous electrical nerve stimulation; NMES = neuromuscular electrical nerve stimulation).With respect to decision making, focus-group participants said that they change the type and parameters of the EPA according to a client's response. Participants reported that the prevalence figures for EPA use did not accurately reflect their practice. While agreeing that heat, US, and IFT were used most often, some participants stated that they use cold and acupuncture more often than the graphs suggested. Reflecting on the differences between their practice and the results of the chart audit, some focus-group participants compared their charting of manual and EPA techniques: I am probably less specific in charting manual therapy techniques knowing that if someone else is going to take over from me, there would be a verbal conversation or something because there is less reliability between therapists [if they read the chart only], whereas with some of the electrophysical agents, yes, someone should be able to look at the settings in the chart and do exactly as you did. This distinction corresponds to the chart audit results. More reliability was conferred upon the charting of EPA treatment when compared to a manual therapy technique. Manual therapy techniques are adjusted according to tissue or client response, and one treatment can have an effect, whereas EPA parameters are applied in the same way each time they are used and require multiple doses to have clinically significant effects. Despite this approach to reasoning, discussion revealed that the therapeutic effect of an EPA may not always be the reason for its continued use. Participants admitted to using an EPA to motivate, reassure, or encourage a client: I have a client who comes in, goes to the gym for an hour, says "I'm sore, I'd like that IFC." It might not be indicated but there is no harm to it. He wants IFC because it makes him feel good after exercise. It is a motivator to encourage exercise. It doesn't mean we are using IFC to solve any problem. It is a tool to help the client go from today to the next day.

Conclusion

This mixed-method study reveals aspects of management of SA-LBP that merit further investigation. We found that treatment of injured workers with SA-LBP follows a pattern of continuous treatment using joint mobilization and core-strengthening exercises, with declining use of EPAs for pain management and increasing use of aerobic and more general exercises over time. The pattern found in the charts—decreasing passive and increasing active interventions over time—is consistent with the focus-group participants' description of how they approach treatment of clients with SA-LBP: "time to jump in" and "to get them on board with coming out of that acute phase and into that more active phase."

However, we discovered a higher prevalence of interventions for which there is less evidence of effectiveness (e.g., joint mobilization, stabilization exercises) and a lower prevalence of

interventions supported by more evidence (e.g., soft-tissue techniques, TENS, graded exercises). These treatment patterns must be investigated for effectiveness from both short-term and long-term perspectives if physiotherapy is to have a positive impact on the incidence and prevalence of chronic LBP.

REFERENCE:

1. Deyo, R. A., Walsh, N. E., Martin, D. C., Schoenfeld, L. S., & Ramamurthy, S. (1990). A controlled trial of transcutaneous electrical nerve stimulation (TENS) and exercise for chronic low back pain. New England Journal of Medicine, 322(23), 1627-1634.
2. Airaksinen, O., Brox, J. I., Cedraschi, C. O., Hildebrandt, J., Klaber-Moffett, J., Kovacs, F., ... & Zanoli, G. (2006). Chapter 4 European guidelines for the management of chronic nonspecific low back pain. European spine journal, 15, s192-s300.
3. Foster, N. E., Thompson, K. A., Baxter, G. D., & Allen, J. M. (1999). Management of nonspecific low back pain by physiotherapists in Britain and Ireland: a descriptive questionnaire of current clinical practice. Spine, 24(13), 1332.
4. Moffett, J., & McLean, S. (2006). The role of physiotherapy in the management of non- specific back pain and neck pain. Rheumatology, 45(4), 371-378.
5. Van Tulder, M., Becker, A., Bekkering, T., Breen, A., Gil del Real, M. T., Hutchinson, A., ... & Malmivaara, A. (2006). Chapter 3 European guidelines for the management of acute nonspecific low back pain in primary care. European Spine Journal, 15, s169-s191.
6. van Tulder, M. W., Koes, B., & Malmivaara, A. (2006). Outcome of non-invasive treatment modalities on back pain: an evidence-based review. European Spine Journal, 15(1), S64-S81.
7. Borman, P., Keskin, D., & Bodur, H. (2003). The efficacy of lumbar traction in the management of patients with low back pain. Rheumatology international, 23(2), 82-86.
8. Haldeman, S., & Dagenais, S. (2006). What have we learned about the evidence- informed management of chronic low back pain?. The Spine Journal, 6(1), 266-277.
9. Shealy, C. N., & Borgmeyer, V. (2003). Decompression, reduction, and stabilization of the lumbar spine: A cost effective treatment for lumbosacral pain. American Journal of Pain Management 1997; 7 (2): 663, 665.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp127-135
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

The Influence Of Exercise Method, Cooperative Attitude, And Sex Types On Volleyball Playing Skill (An Experimental Study On Students Of State Vocational High School 4 Kendal)

Joko Pranawa Adi[1], Soegiyanto[2], Sugiharto[2], Setya Rahayu[2], Siti Baitul Mukarromah[3]

[1] Teacher at Senior High School 4 Kendal, Indonesia
E-mail: jokopranawaadi@gmail.com
[2] Postgraduate program, Universitas Negeri Semarang, Indonesia
[3] Sport Science Department, Universitas Negeri Semarang, Indonesia

Abstract

This research compares the technical with the tactical exercise method as treatment variable, cooperative attitude, and sex types as attributive variable on volleyball playing skill for students attending volleyball extratracurricular. Thus, the purpose of this research is to figure out the influence of exercise method, cooperative attitude, and sex types on volleyball playing skill.

This experiment research is conducted with a factorial research design of 2x2x2. The research population is students of grade X and XI with a total of 122 respondents. After a sampling method is conducted, 40 students are selected. The samples consist of 20 male students and 20 female students. each group consists of 10 students with high cooperation and the other 10 students with low cooperation. This research is conducted at the volleyball field of State Vocational High School 4 Kendal. The research instruments are questionnaires on cooperative attitude, observation, exercise program, and skill testing in playing volleyball. This reseach employs a *Randomize Block Design Analysis* at a significance level of $\alpha = 0.05$. The hypothetical testing results show that: (1) Sig. = 0.006 is smaller than sig = 0.05. It means that there is a significant influence difference between the technical and the tactical exercise method on volleyball playing skill; (2) Sig. = 0.006 is smaller than sig = 0.05. It means that there is a significant difference between the high and the low cooperative attitude on volleyball playing skill; (3) Sig. = 0.001 is smaller than sig = 0.05. It means that there is an interaction between exercise method and cooperative attitude on volleyball playing skill; (4) Sig. = 0.001 is smaller than sig = 0.05. It means that there is a significant interaction between the exercise method and sex types on volleyball playing skill; (5) Sig. = 0.001 is smaller than sig = 0.05. It means that there is a significant interaction between cooperative attitude and sex types on volleyball playing skill; (6) Sig. = 0.002 is smaller than sig = 0.05. It means that there is a significant interaction between exercise method, cooperative attitude, and sex types to volleyball playing skill.

Suggestions: (1) the trainers are required to conduct cooperation measurements in finding the talented students, and those students with high cooperation should be then well guided. Meanwhile, students with low cooperation should not be guided to become competitive athletes; (2) students are always suggested to maintain their cooperation exercise and teamwork that eventually improve their volleyball playing skill.

Keywords: exercise method, cooperative attitude, sex types, volleyball playing skill.

Introduction

Nowadays, there are two known exercise methods in game learning called Technical Method and Tactical Method. which method should be taken is the teachers' or trainers' authority based on their understanding to achieve the optimum results.

Learning conducted at school does not distinguish sex types during the implemention of learning processess. Female students have same rights with the male students to obtain learning materials. Thus, teachers should pay attention to the skill differences between male and female students for their learning success by considering that physical, sports, and health education uses physical activities to achive th goals. Based on above explanations, physical, sports, and health education learning, the teachers should pay attention on their teaching method as well as male and female students' differences when implementing learning processes that students are highly motivated to absorb learning based on the expected purposes. Based on above explanations, it is understood that to well implement volleyball exercise, accuracy is required by the trainers in using the exercise method. To develop players' creativity and moving skill learning processes may run very well, cooperation among players is conducted. To realize the moving skills of each student, the innitial state of players' cooperative ability should be well recognized. Understanding on the players' innitial state may provide an insight to well organize the program. With a good organizing program, it is expected that players' potential to achieve the volleyball playing minimum skill may be developed.

Research Objectives

The purpose of this research is to figure out the volleyball playing skill achievement results in detail by examining influence differences between technical and tactical exercise method; influence differences between high and low cooperative attitude; interaction between exercise method and cooperative attitude; interaction between exercise method and sex types, cooperative attitude and sex types; interaction between exercise method, cooperative attitude, and sex types to volleyball playing skill.

Research Methods

This research uses a *multivariant* research design with factorial 2x2x2.This *multivariant* design is conducted to figure out the influence of variables with various main factors and those with combination levels as well as the influence of interaction with various factors to the volleyball playing skill.

This research population is students of X and XI grades of State Vocational High School 4 Kendal in the Academic Year of 2010/2011 attending volleyball extracurricular activities with the total number of 122 respondents. Those consists of 71 male and 51 female students. The research samples are collected using a *purposive sampling* technique. Thus 40 students are selected to be the research samples consisting of 20 male and 20 female students classified into 4 groups of students.

Data collection technique and instruments used in this research are testings on the cooperative attitude and the volleyball playing skill.

Data obtained from volleyball playing skill results are then analyzed using a *Randomized Block Design* analysis for factorial experiment. The analylitical results show that there is a major influence of independant variables on dependent variables as well as interaction beween independant variables in their relationship with the dependent variables. Before analyzing the data, the required normality and homogeneity tests are conducted. The normality test uses *Liliefors* testing, while homogeneity test uses *Levene Testing*. The results are considered normal with Sig > 0.05 (P>0.05), and Sig > 0.05 (P>0.05) respectively for both testings conducted with significance level $\alpha = 0.05$.

Results and Discussions

Results

The data collected from the results of volleyball playing skill of each group based on the experimental treatment are used as the analytical materials. Based on the experiment designs of this research, there are eight groups requiring to be described separately. The score descriptiona of the eight-group volleyball playing skill results are as follows.

Table 1. Desain of playing skills

EXERCISE METHOD		TECHNICAL		TACTICAL	
COOPERATIVE ATTITUDE		High	Low	High	Low
Sex types	M	A : 113.2000 SD : 8.78635 N : 5	A : 111.8000 SD : 12.9112 N : 5	A : 112.000 SD : 12.3895 N : 5	A : 114.6000 SD : 10.2127 N : 5
	F	A : 111.8000 SD : 07.791 N : 5	A : 113.0000 SD : 10.6066 N : 5	A : 117.2000 SD : 8.81476 N : 5	A : 119.0000 SD : 4.30116 N : 5

Description:
M = Male F = Female A = Average (Mean)
SD = Standard Deviation N = Sample Number

Based on the data above, the following is displayed concerning vulleyball playing skill data in the shape of histogram.

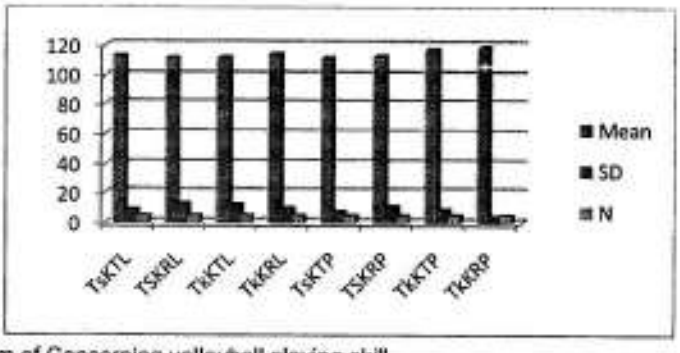


Fig 1. Histogram of Concerning volleyball playing skill
Description:
TsKTL : Technical Method, High Cooperative attitude, Male
TsKRI : Technical Method, Low Cooperative attitude, Male
TkKTL : Tactical Method, High Cooperative attitude, Male
TkKRL : Tactical Method, Low Cooperative attitude, Male
TsKTP : Technical Method, High Cooperative attitude, Female
TsKRP : Technical Method, Low Cooperative attitude, Female
TkKTP : Tactical Method, High Cooperative attitude, Female
TkKRP : Tactical Method, Low Cooperative attitude, Female

In detail, data description presented in above table and histogram may be explained as follows:
The volleyball playing skill testing results on technical exercise method group with high cooperative attitude of male students (TsKTL) based on the table show that X = 113.2000, DS = 8.78635, and n = 5. It means that of 5 students, there is 1 student with volleyball playing skill above the average while the other 4 students are under average.
The volleyball playing skill testing results on technical exercise method group with low cooperative attitude of male students (TsKRL) based on the table above show that X=111.8000, DS= 2.91124 and, n = 5. It means that of 5 students, there are 3 students with volleyball playing skill above the average while the other 2 students are under average.

The volleyball playing skill testing results on tactical exercise method group with high cooperative attitude of male students (TkKTL) based on the table above show that X=112.000, DS= 2.38951, and n = 5. It means that of 5 students, there are 4 students with volleyball playing skill above the average while 1 student is under average.

The volleyball playing skill testing results on tactical exercise method group with low cooperative attitude of male students (TkKRL) based on the table above show that X=114.6000, DS=10.21274, and n = 5. It means that of 5 students, there are 2 students with volleyball playing skill above the average and 3 students are under average.

The volleyball playing skill testing results on technical exercise method group, with high cooperative attitude of female students (TsKTP) based on the table above show that X=111.8000, DS= 7.79102 and n = 5. It means that of 5 students, there are 2 students with volleyball playing skill above the average and 3 students are under average.

The volleyball playing skill results on technical exercise method group with low cooperative attitude of female students (TsKRP) based on the table above, show that X=113.0000, DS=10.60660, and n = 5. It means that of 5 students, there are 2 students with volleyball playing skill above the average and 3 students are under average.

The volleyball playing skill results on tactical exercise method group with high cooperative attitude of female students (TkKTP) based on the table above show that X = 117.2000, DS = 8.81476, and n = 5. It means that of 5 students, there is 1 student with volleyball playing skill above the average and 4 students are under average.

The volleyball playing skill testing result on tactical exercise method group with low cooperative attitude of female students (TkKRP) based on the table above show that X = 119.0000, DS = 4.30116, and n = 5. It means that of 5 students, there are two students with volleyball playing skill above the average and 3 students are under average.

Normality Test

The normality test data are examined to figure out whether each group data are normally distributed or not. normality test data are then tested with *Lilliefors* test (Sudjana : 2002). The result is normal if Sig > 0.05 (P > 0.05). For all testings are conducted with significance level α = 0.05.

Table 2. The summary of normality testing results of each group

Treatment Group	Kolmogorof – Smirnov[a]			Shapiro-Wilk			Conclusion
	Statistics	df	Sig	Statistics	df	Sig	
Males' High Technical Cooperation	0.309	5	0.134	0.855	5	0.212	Normal
Males' Low Technical Cooperation	0.214	5	0.200	0.966	5	0.847	Normal
Males' High Tactical cooperation	0.314	5	0.120	0.753	5	0.032	Normal
Males' Low Tactical Cooperation	0.362	5	0.031	0.814	5	0.105	Normal
Females' High Technical Cooperation	0.370	5	0.130	0.868	5	0.346	Normal
Females' Low Technical Cooperation	0.300	5	0.161	0.910	5	0.470	Normal
Females' High Tactical cooperation	0.242	5	0.200	0.894	5	0.379	Normal
Females' Low Tactical cooperation	0.279	5	0.200	0.885	5	0.335	Normal

From the table above, it is found that technical exercise method, high cooperation, male with Sig value = 0.212 > 0.05 (P>0.05) means normally distributed. Technical exercise method, low cooperation, male with Sig value = 0.847 > 0.05 (P>0.05) means normally distributed. Tactical exercise method, high cooperation, male with Sig value = 0.32 > 0.05 (P>0.05) means normally distributed. Tactical exercise method, low cooperation, male with Sig value = 0.105 > 0.05 (P>0.05) means normally distributed. Technical exercise method, high cooperation, female with Sig value = 0.348 > 0.05 (P>0.05) means normally distributed. Technical exercise method, low cooperation, female with Sig value = 0.470 > 0.05 (P>0.05) means normally distributed.

Tactical exercise method, high cooperation, female with Sig value = 0.379 > 0.05 (P>0.05) means normally distributed. Tactical exercise method, low cooperation, female with Sig value = 0.335 > 0.05 (P>0.05) means normally distributed.

Homogeneity Test

The population homogeneity testing is conducted using *Levene Test* on data resulted from eight research groups which should comply with the assumption that its variant is homogeneous. The result is normal if Sig > 0.05 (P>0.05). All testings are conducted with significance level of α = 0.05 (Sudjana, 2002).

Table 3. The homogeneity testing results are presented in the following table:

Group	Innitial Skill	Final Skill	Conclusion
Technical and Tactical Method Homogeneity	0.571	0.301	Homogenous
High and Low Cooperative Attitude Homogeneity	0.746	0.286	Homogenous
Male and Female Homogeneity	0.992	0.874	Homogenous

From the table above, based on *Levene Test*, it is found that the Sig value = 0.286 > 0.05 (P>0.05). It means that sample is homogeneous.

Based on the calculation results of normality and homogeneity test analytical requirement above conclude that the required analysis for variants is completed that further analysis is conducted with parametric statistics.

Validity Test

The correlated variables are the answers of each item correlated with the total score obtained by each respondent. In addition, value of r_{xy} obtained by each item is consulted against the table value of *r product moment*. If $r_{xy} > r_{table}$ α = 5%, then measuring instrument is considered valid (Arikunto, 2002:146). After the measuring instrument is examined and then the data vaiidity of each item is tested with SPSS version 15.00, H_0: r (each item) < 0.312 means that the item is invalid, while H_1 : r (each item) ≥ 0.312 means the item is valid.

Based on the obtained results of the statistical calculation due to the correlation value, the score which value is more than r_{table} (0.312), then the item is considered valid. Reliability is the obtained result of a relative or constant test when used at the other chances. Reliability testing may be based on the *output* of *Cronbach's alpha* value, in which the reliability test is determined by the table value of *Product Moment Correlation* with the degree of freedom n-1 (n=number of trial participants). The item is considered reliable, if H_0: α < 0.312 which means that the item is unreliable, while H_1: $\alpha \geq 0.312$ means that the item is reliable.

Based on the obtained data from this research as presented on enclosure 6 page 113, it shows the resulted value of α which is more than r_{table} (0.312), then the instrument is considered reliable that the instrument may be used as the research instrument.

Hypothetical Test

This research is conducted based on the schedule prepared while data are obtained from the observation results on students, including their cooperative attitude. Cooperative attitude is accurately observed by paying attention to students' attitude on material, exercise process, norm trainer and exercise materials. Data are also obtained from volleyball skill by observing students on performance, volleyball playing, basic technique, and sportivity aspect. Variant analytical calculation is conducted in the research hyphotical testing using SPSS version 19 that the results are obtained as follows:

Table 4. Analytical Result Recapitulation of a *Randomized Block Design Post Hoc Testing Treatment*

(I) TREATMENT	(J) TREATMENT	Mean Difference (I-J)	Std Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Treatment 1	Treatment 2	2.5333	2.21755	0.001	-3.2485	8.3152
	Treatment 3	-1.6667	2.21755	0.009	-7.4485	4.1152
	Treatment 4	-4.2667	2.21755	0.002	-10.0485	1.5152
Treatment 2	Treatment 1	-2.5333	2.21755	0.007	-8.3152	3.2485
	Treatment 3	-4.2000	2.21755	0.002	-9.9819	1.5819
	Treatment 4	-6.8000	2.21755	0.001	-12.5819	-1.0181

Treatment 3	Treatment 1	1.6667	2.21755	0.009	-4.1152	7.4485
	Treatment 2	4.2000	2.21755	0.002	-1.5819	9.9819
	Treatment 4	-2.6000	2.21755	0.006	-8.3819	3.1819
Treatment 4	Treatment 1	4.2667	2.21755	0.002	-1.5152	10.0485
	Treatment 2	6.8000	2.21755	0.001	1.0181	12.5819
	Treatment 3	2.6000	2.21755	0.006	-3.1819	8.3819

Table 5. Analytical Result Recapitulation of a *Randomized Block Design Test Between-Subjects Effects*

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	3069.017	5	613.803	8.321	0
Intercept	1573688.033	1	1573688.033	21334.463	0
Treatment	735.300	3	245.100	3.323	0.002
Block	2333.717	2	1166.858	15.819	0
Error	8408.950	114	73.763		
Total	1585166.000	120			
Corrected Total	11477.967	119			

The analytical results of *Randomized Block Design* conclude that:

From the analytical results of *Randomized Block Design,* it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant difference between technical and tactical exercise method on volleyball playing skill. Thus, the alternative hyphotesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is a difference between technical and tactical exercise.

From the analytical result of *Randomized Block Design,* it is obtained that Sig = 0.006 is smaller than Sig = 0.05. It can be concluded that there is a significant difference between high and low cooperative attitude to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted and the null hypothesis (Nh) is rejected. It means that there is a different between high and low cooperation.

From the analytical result of *Randomized Block Design,* it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction beiween exercise method and cooperative attitude to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method and cooperative attitude.

From the analytical result of *Randomized Block Design,* it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between exercise method and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method and sex types.

From the analytical result of *Randomized Block Design,* it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between cooperative attitude and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between cooperative attitude and sex types.

From the analytical result of *Randomized Block Design,* it is obtained that Sig = 0.002 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between exercise method, cooperation, and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method, cooperation, and sex types.

There are 6 significant alternative hypotheses of this research, covering exercise method, cooperative attitude, and sex types to volleyball playing skill. It shows that in playing volleyball, cooperative attitude plays a quite important role. Thus, there is a significant increase of volleyball playing skill experienced by each group before and after treatments (pretest and posttest).

Discussions

The influence difference of technical and tactical exercise method on volleyball playing skill.

The analytical calculation results of *Randomized Block Design* show that the Sig value = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant different between technical and tactical exercise method on volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis is rejected. It means that there is a difference between the technical and the tactical exercise method.

Each technical and tactical exercise method provides strenghts and weaknesses. Exercise method is one important factor used to gain achievements. One of strenghts of technical exercise method is easier and more efficient (time saving). In the implementation, it is conducted using a technical learning systematic to the others after one technique is completely learned. The exercise method used in exercise is important to be acknowledged by each teacher or trainer that the expected process result may be instantly and correctly achieved. Technical exercise method is a good teaching method to build certain habits, a medium to obtain a dexterity, accuracy, opportunity, and skill (Syaiful Sagala, 2003:217). The weakness of technical exercise method is that students shoud have a basic skill and technique on a particular sport that they are interested in.

Meanwhile, the major advantage of tactical exercise method is on understanding the form and the nature of game that the players may gradually have better playing ability. Tactical exercise method is conducted by giving direction to make partial movements of overall exercises that after those steps are well acquired, then continued by the other part of exercise program. The weakness of this exercise method requires longer time and more difficult to do as students do not have to acquire technical ability on a sport that they are interested in.

Due to the strenghts and weknesses, both exercise methods are significantly different. The data description results before and after treatments (pre-test and post-test) show that all groups experience volleyball playing skill increase. The hypothetical acceptance stating that there is an influent difference between technical and tactical exercise method on volleyball playing skill shows that both methods may be equally used very well.

The influent differences of high and low cooperation to volleyball playing skill.

From the analytical result of *Randomized Block Design*, it is obtained that Sig = 0.007 is smaller than Sig = 0.05. It can be concluded that there is a significant different between high and low cooperation on volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is a difference between high and low cooperation.

Cooperation is an attitude that the students have and highly influences the teamed sport game. High and low cooperative attitude have a significant different. Basically, cooperation indicates two parties or more dinamically interacting to achieve similar purposes. There are three major elements attaching at the cooperative frame covering elements of two parties or more, interaction, and purposes. If one element is not included to one object under study, it maybe assumed that there is no cooperation in that object.

The element of two parties is always describing an association which influences each other that interaction to realize mutual purposes is important to do. If the relationship or interaction is not intended to fulfill each party's interest, then the intended relationship is not considered as a cooperation. Although an interaction has a dinamic characteristic, it does not always mean a cooperation. A cooperation intended to fulfill other parties' interest involved in interaction process is also not considered as a cooperation. Cooperation usually places the interacting parties at balance, appropriate, and harmonic positions. Thus, cooperation significantly influences volleyball playing skill.

Interaction between exercise method and cooperative attitude to volleyball playing skill.

From the analytical result of *Randomized Block Design*, it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between exercise method and cooperative attitude on volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method and cooperative attitude. There is an interaction between exercise method and cooperative attitude to volleyball playing skill. It shows that there is a direct relationship between cooperative attitude and volleyball playing skill in the exercise method. By using tactical and technical exercise method, the results of volleyball playing skill may be influenced.

4) Interaction between exercise method and sex types to volleyball playing skill.

From the analytical result of *Randomized Block Design*, it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between exercise method and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method and sex types.

Interaction between cooperative attitude and sex types to volleyball playing skill.

From the analytical result of *Randomized Block Design*, it is obtained that Sig = 0.001 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between cooperative attitude and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between cooperative attitude and sex types. There is an interaction between cooperative attitude and sex types to volleyball playing skill. It shows that there is a direct relationship between sex types and volleyball playing skill in the cooperative attitude. By having cooperative attitude, the results of volleyball playing skill may be influenced.

Interaction between exercise method, cooperation, and sex types to volleyball playing skill.

From the analytical result of *Randomized Block Design*, it is obtained that Sig = 0.000 is smaller than Sig = 0.05. It can be concluded that there is a significant interaction between exercise method, cooperation, and sex types to volleyball playing skill. Thus, the alternative hypothesis (Ah) is accepted while the null hypothesis (Nh) is rejected. It means that there is an interaction between exercise method, cooperation, and sex types.

An interaction takes place when ther is a significant influent difference between exercise methode, cooperative attitude, and sex types to volleyball playing skill which can be explained as follows:

There is an interaction between exercise method and cooperative attitude to volleyball playing skill. It shows that there is a direct relationship between cooperative attitude and volleyball playing skill in exercise method. By using tactical and technical exercise method, the results of volleyball playing skill may be influenced.

There is an interaction between exercise method and sex types to volleyball playing skill. It shows that there is a direct relationship between sex types and volleyball playing skill in technical and tactical exercise method. By using technical or tactical exercise method, the results of volleyball playing skill may be influenced.

There is an interaction between cooperation and sex types to volleyball playing skill. It shows that there is a direct relationship between sex types and volleyball playing skill in cooperation. High and low cooperations influence volleyball playing skill.

There is an interaction between exercise method, cooperative attitude, and sex types to volleyball playing skill. It shows that there is a direct relationship between volleyball playing skill and exercise method. cooperation, and sex types. Thus, Exercise method, cooperation, and sex types, may influence volleyball playing skill.

Conclusions and Suggestions

Conclusions

From the hypothetical testing results, it can be concluded as follows; (1) there is a difference of technical and tactical exercise method on volleyball playing skill; (2) there is a difference of high and low cooperative attitudes on volleyball playing skill; (3) there is an interaction of exercise method and cooperative attitude on volleyball playing skill; (4) there is an interaction of exercise method and sex types on volleyball playing skill; (5) there is an interaction of cooperative attitude and sex types on volleyball playing skill; (6) there is an interaction of exercise method, cooperative attitude, and sex types on volleyball playing skill.

Suggestions

Based on the conclusions above, some suggestions are given as follows; (1) volleyball trainers in selecting talented players should include cooperation element as one parameter to select the talented players; (2) Volleyball players are expected to do team cooperative exercise to improve their teamwork while trainers should include special cooperative exercise in their exercise programs as forms of core exercise; (3) researchers intended to continue or replicate this research should convince more regarding to the findings of the research results and develop further researches and are suggested to do tigher controls in all series of experiments. Controls on independent variables out of the investigated variables should be conducted in tighter and more accurate ways that threat of internal and external validities may maximally be avoided; (4) research should be conducted based on cooperative attitude, especially focusing on sport psychological domain.

References

Agus Kristiyanto. 2010. *Memperluas Desain Permainan Bolavoli di Masyarakat Kita*. Surakarta: Universitas Sebelas Maret Press.

Agus Suprijono. 2010. *Cooperative Learning Teori dan aplikasi PAIKEM*. Yogyakarta: Pustaka Pelajar

Alley, Thomson R dan Hick Catherine M. 2005. *Peer Attitude Toward Adolecent Participants in Male Ans Female Oriented Sport*. Journal 2005

Arikunto, S (2002). *Prosedur Penelitian, Suatu Pendekatan Praktek*. Jakarta: PT. Rineka Cipta.Sunarto dan Agung Hartono. 1994. *Perkembangan Peserta Didik*. Jakarta: Depdikbud

Badudu, J.S dan Sutan Muhammas Zain. 2001. *Kamus Umum Bahasa Inconductedsia*. Jakarta: Pustaka Sinar Harapan.

Baumgartner, Ted A. 2006. *Measurement For Evaluation in Physical and Exercise Science*. New York: McGraw-Hill Companies Inc.

Beltasar Tarigan. 2001. *Pendekatan Taktis Dalam Pembelajaran Sepakbola*: Depdiknas Dirjen Dikdasmen.

Danu Hoedaya. 2001. *Pendekatan Keterampilan Taktis Dalam Pembelajaran Bola Basket*. Jakarta: Depdikbud

Depdiknas, 2004. *Sport Development Index (SDI) Nasional, Proyek Pengembangan dan Keserasian Kebijakan Direktorat Jenderal Olahraga, Mata Pelajaran Pendidikan Jasmani*.

Depdiknas. 2006. *Standar Kompetensi Dan Kompetensi Dasar SMP/MTs*. Jakarta: Departemen Pendidikan Nasional.

Desmita. 2008. *Psikologi Perkembangan*. Bandung: PT Remaja Rosdakarya

Dieter Beutelstahl, (2005). *Belajar Bermain Bola Volley*. Jakarta: CV Pionir JayaDria Anbarias. 2009. *Pengaruh Olahraga Sepak Bola Terhadap Perilaku Kooperatif Pada Siswa Sekolah Sepak Bola (SSB) KOP Sepak Bola Cikembar*. Skripsi. Bandung: UPI.

Dria Anbarias. 2009. *Pengaruh Olahraga Sepak Bola Terhadap Perilaku Kooperatif Pada Siswa Sekolah Sepak Bola (SSB) KOP Sepak Bola Cikembar*. Bandung: UPI

Eleni Zetau, Thomas Kourtesis. 2008. *The Effect of Self Modeling on Skill Learning and Self Efficacy of Novice Female Beach Volleyball Player*. Journal

Eve Bernstein, Sharon R Phillips dan Stephen Silverman. 2011. *Attitude and Perception of Middle School Students Toward Competitive Activities in Physical Education*. Journal

Hadi Suyono, 2008, *Pengantar Psikologi Sosial 1, Teori Dan Terapan*. Yogyakarta: D&H Pro Media.

Herman Subarjah. 2010. *Pengaruh Model Latihan Terhadap Hasil Belajar Keterampilan Bermain Bulutangkis*. Jakarta: Kemenpora RI, Jurnal IPTEK Olahraga.

ISSN 2231-3265
International Journal of Health, Physical Education and Computer Science in Sports
Volume No.26, No.1pp136-138
Journal Impact Factor 3.565(UGC Approved Journal)
A Peer Reviewed (Refereed) International Research Journal

Evaluating the practice and challenges of per-led learning on sport science students', Bahir Dar University

Wondimagegnshewangizaw
Department of sport science,
Bahir Dar University, Bahir Dar City, Ethiopia
Email:wondimshewa@gmail.com

Abstract:
The main purpose of the research is to evaluate the practices and challenges of peer- Led learning of sport science students in Bahir Dar University of sport academy. The research used the descriptive study design. The research included undergraduate sport science second year and third year students (n=66), and mentors or advisors (n=2). Random sampling for students and purposefully 2mentors totally 37 respondents are taken. Questionnaire was used for students and interview was used for mentors. The result showed that, the attitude and interests of students to actively participate in the peer group, relationship of mentors and peer groups,the newness and forced implementation of the peer led strategy in the university and the follow up system still are the challenges.Key-words: peer – led, mentor, peer –group

Introduction

Peer- learning is not a single educational strategy. It encompasses a broad sweep of activities. Peer learning ranges from the traditional proctor model, in which senior students tutor junior students, to the more innovative learning cells, in which students with the same year from partnership to assist each other with both course and content and personal concerns. Other models involve discussion, seminar, private study groups, collaborative project or laboratory work, project in deference size groups, work place mentoring and community activities (Griffiths, HoustenandLazenbatt, 1995). Peer learning should mutually beneficial and involve the sharing of knowledge ideas and experience between participants. It can be describe as a way of moving beyond independent to interdependent or mutual learning (Boud 1988).

Bahir Dar University, among the thirty and above universities in the country has been advocated to use peer-led teaching and learning strategy as a major learning strategy by the ministry of education. Since then, the university owned the peer-led learning as major learning strategy. Sport academy as one among many academic unit of the university has been using peer-learning learning strategy for the last three and above years. In the university as well as in the sport academy peer learning groups formed when students first joined in each department. The peer-led group formation is proposed by the academic advisor or mentor. At the beginnings of students' fresh man year, the peer group is formed by their high school academic achievement.(Blue book 2014)

According to the university an individual peer-led group consist of members not less than five and more than eight students. In the grouping the diversity is kept based on the students' academic rank mainly, and gender next to the academic rank. The peer group has one group leader who has a good grade and be accountable for the group he/she is leading next to the mentor. The groups during their stay in the university have planned to function as system during and after the class room. They plan their meeting for each week of the semester. In addition their meeting will be supervised by their mentor and they report their achievement at least once within a week (Blue Book 2014).

Peer learning is one type of teaching learning strategy among many. Students learn a great deal by explaining their ideas to others and by participating in activity in which they can learn for their peers. They develop skills in organizing and planning learning activities, working collaboratively with others, giving and receiving feedback and evaluating their own learning. Peer learning is becoming an increasingly important part of many courses, and it is being used in a variety of contexts and disciplines in many countries (http//WWW.styluspub.com).

Peer learning even if the very objective is to help the teaching learning and the quality of education, it is not currently fully used and willingly accepted by students in university. The sport academy students like other students in the university started to use the peer led learning two heartedly. From the reflection of sport science students and from the experience as mentor of students in the academy if we use the peer group properly it will help their learning push them one step forward. However, students are not using peer led group to its full potential as well as teachers and mentors. So the research will try to investigate the current practice and challenge of peer-led group teaching learning strategy on second year and third year sport science students.

Materials and Methods

The research used descriptive in terms of design and data collection. The research population included undergraduate second year and third year regular sport science students (n=66) and section advisors or peer group mentors (n=2). Their total number is 68. Simple random sampling was used to select from student and a total of 35 students were selected as the research sample. The mentors (n=2) are all selected purposefully. To gather information from students self-prepared questionnaire were made and used and a semi- structured interview were used for mentors.

Results and Discussion

Table1: The study year of students

Variable	Frequency	Percentage
2nd year	16	51%
3rd year	17	49%
Total	35	100%

Table 2:Responses about the interest of students to participate in peer- led used by the university

Item	Frequency	Percentage (%)
Yes	11	31.4
No	24	68.6
Total	35	100%

Table3: Teachers use of peer -led teaching mechanism in the class room.

Item	Frequency	Percentage (%)
never	24	69%
sometimes	11	31%
Always	0	0
Total	35	100%

Table5:Responses of students on the teachers' equal acceptance&interest for all students in the group during peer presentation and assignment work.

Item	Frequency	Percentage (%)
Never	9	25.7%
Sometimes	21	60%
Always	5	14.3
Total	35	100%

Table 5:Reasons why students use the peer group for

Reasons of respondents	Frequency	Percentage
To get good grades	7	20
To involve in group assignment	10	28.6
To create good relationship	1	2.9
Because it is force by the university	17	48.6
Total	35	100

Interview Results

Three interview questions were asked for mentors about their attitude, belief of using peer-led learning in higher education, and the main challenge of the implementation of the learning strategy. The following responses were given.

Regarding the attitude, they both have agreed that peer led as a pedagogical approach can be beneficiary as it enhances the cooperation among learners and can fill gaps in communication, skill, and knowledge among group members. Based on the above facts they said they believe that peer learning strategy can be used in higher education in sport science set ups, and they underlined that the problem comes when we believe it is the only and best method of teaching they said. Regarding the question raised about the main challenges that affect the proper utilization of the peer led learning:

The awareness of both teachers and students

The newness of the strategy used broadly in the university

The experience of individualistic teaching and learning that was used in their high school as well as in their junior schools

Number of class size and luck of interest by the teachers and students

Conclusions

The following conclusion has been made in relation to the research questions:

The current status of peer led strategy is not very strong. Both the teachers and students work in a kind that when there is a need to use for group work only. In addition the frequency of the follow up of the whole peer group members by their mentor is very low.The result showed that, the attitude and interests of students (31.4%) to actively participate in the peer group, inconsistency of teachers use of peer group in the class room, relationship of mentors and peer groups, the inexperience of both students and teachers, the newness of the peer led strategy in the university its forced implementation (48.6%) and the inconsistent of follow up system still are the challenges.

References

1. Buchs, c, Butera, F, and Muguy, G, Resource interdependence, student interaction and performance in cooperative learning, 2004, Taylor & Francis

2. David *Boud,* Developing Student Autonomy in Learning, illustrated, revised. Publisher, Press, *1988*

3. Etienne *Wenger,*Communities of Practice: Learning, Meaning, and Identity. Cambridge University Press, *1998* –

4. http/www.styluspub.com

5.http//www. facultyfocus.com/artice/teaching professor

6. Meyers, Chat; Jones, Thomas B, promoting active learning strategies for the college class room,Jossey-bass inc 1993

7. Millis, Barbara J; Cottell, Phillip G. cooperative learning for higher education faculty, series on higher education, 1997 Uryx press.

8. Sandra Griffiths; k Houston; Anne Lazenbatt; enhancing student learning through peer tutoring in higher education, university of ulster 1995

9. Blue Book,2014, Bahirdar university