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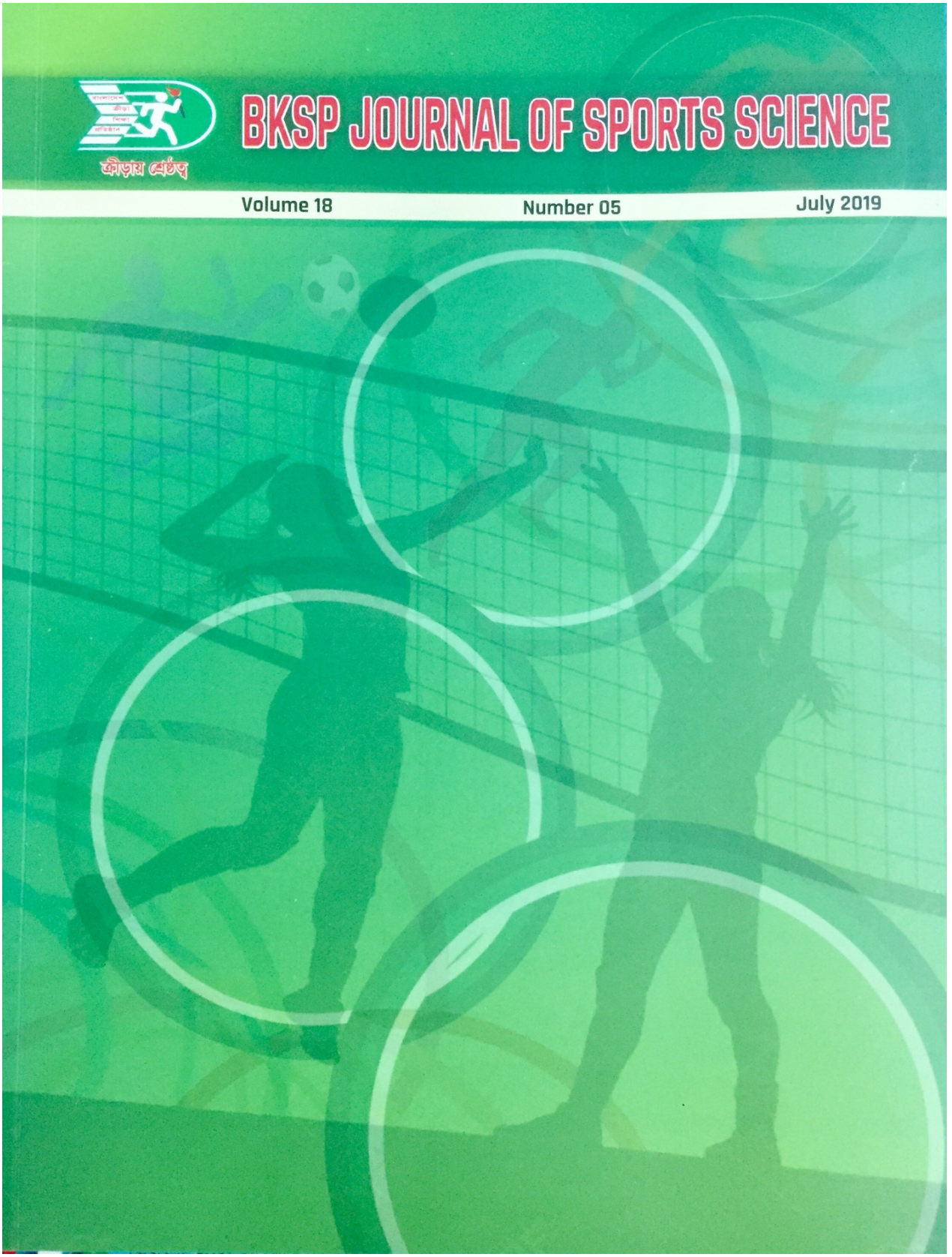

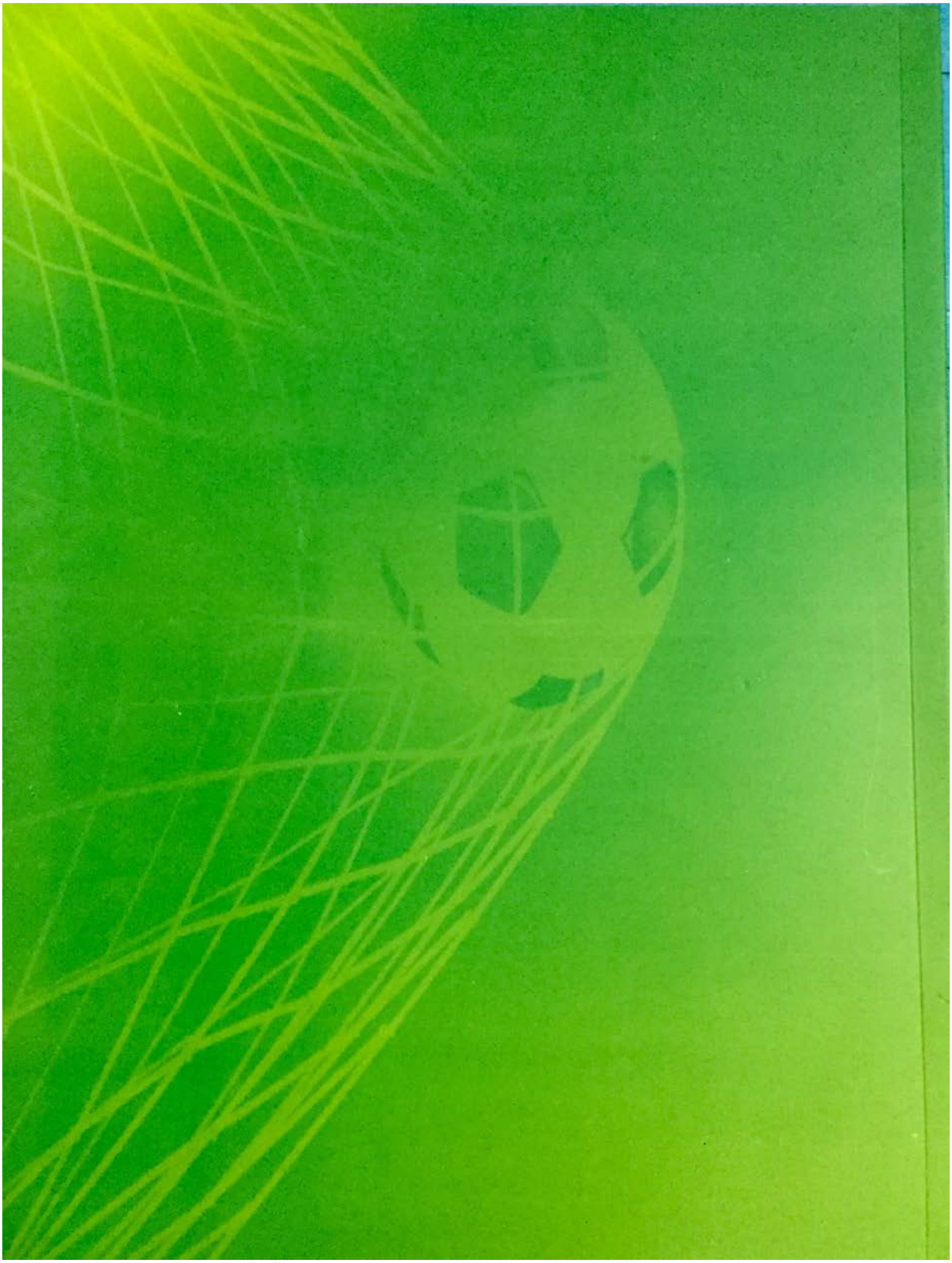

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CONTENTS

TIME ANALYSIS OF 25M SWIMMING OF JUNIOR NATIONAL LEVEL SWIMMERS

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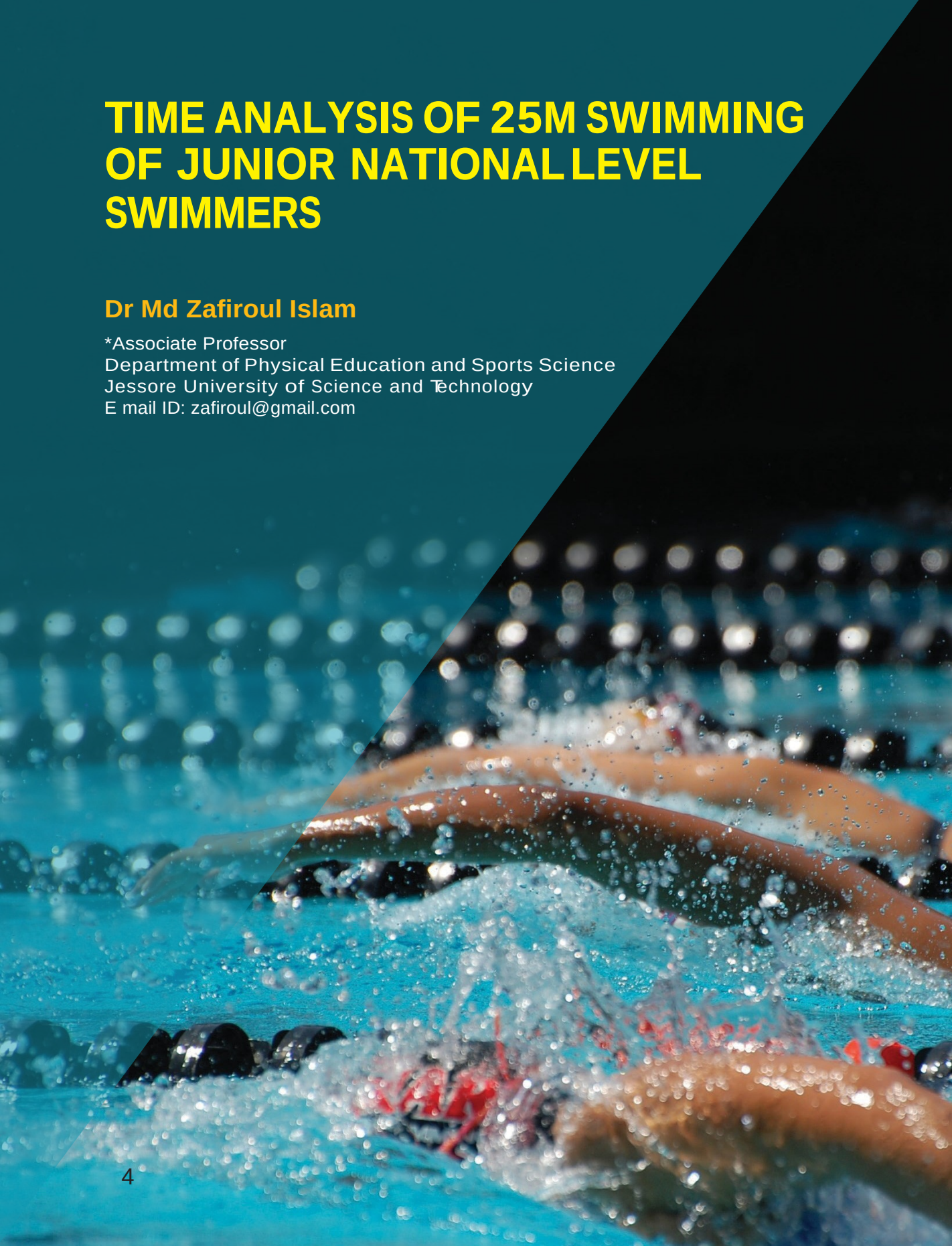


Abstract

The purpose of the study was to analyze the zonal time of 25m sprint swimming. Twelve Bangladesh National level junior swimmers were selected as subjects for the present study. The data for the present study were collected at Navy Swimming Pool, Dhaka. The total distance of 25m was divided into five equal zones of 5m each. The time of every 5m zone was recorded. Zonal velocities were calculated from zonal distance-time information. Kinematic nature of 25m sprint swimming was analyzed from the obtained velocity-time information.

The results indicated that the swimmers achieved top velocity just after start at a distance of 2.5m. Thereafter, the swimming velocity gradually decreased and from 10m distance it became almost constant up to the finish.

Key words: Time analysis, Swimming

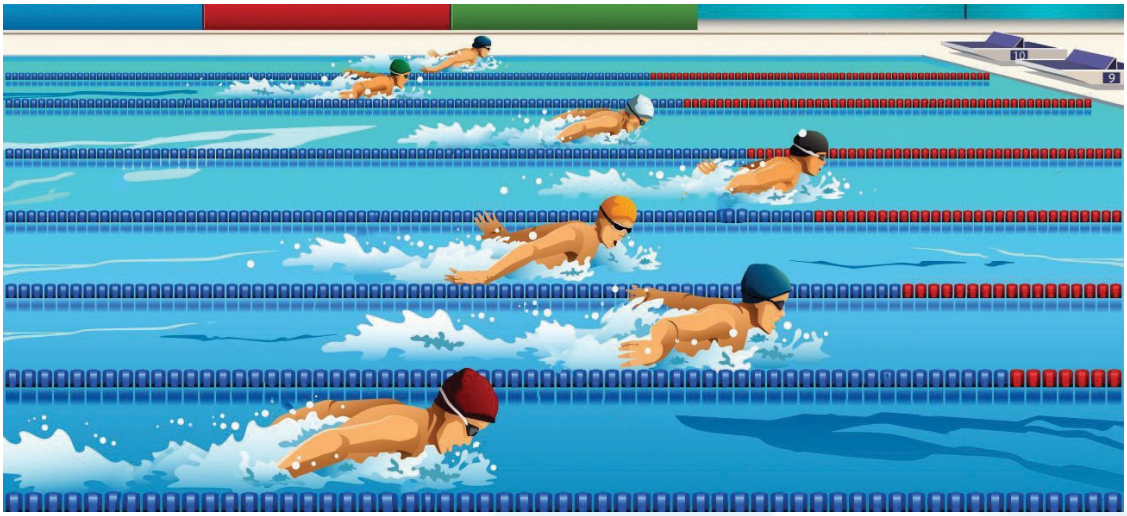
INTRODUCTION:

Time duration is considered as the measure of performance in events like running and swimming. Time analysis therefore becomes the analysis of performance for these events. It is a sequence of performance indexed in time order. Most commonly, it is a sequence taken at successive equally spaced points in time. It reveals short term fluctuations in performance which are neither systematic nor predictive. Common goal of time analysis is extrapolating past behaviour into future . Time analysis comprises methods for analyzing time data in order to extract meaningful characteristics of change in performance. It provides a model to predict future trend of performance based on previously observed values. Moravec , Ruzicka and others (1988) used time analysis for 100m event of II World Championships in Athletics. Rumee, Yasmin and Bhowmick (2003) used this technique for 100m run of BKSP sprinters. The purpose of the present study was to use this technique of time analysis for 25m swimming of junior National level swimmers of Bangladesh.

METHODOLOGY:

A total of twelve swimmers within the age group of 15 -18 years were selected as subjects for the study. They were all junior national level

swimmers of Bangladesh. At the time of collection of data all of them used to practice under the supervision of qualified coaches. For collecting data, the subjects were tested for their performance in 25m swimming at the Navy Swimming Pool at Banani, Dhaka. The total distance of 25m was divided into five equal zones of 5m each. Time keepers were posted at the end of each of the zones for recording zonal time of the subjects in 25m swimming. Each subject started swimming with usual command. Time was recorded at the end of each zone.



RESULTS AND DISCUSSION:

From distance-time information, zonal time and zonal velocities were calculated. Table -1 shows the mean values of distance-time, zonal time and zonal velocities of the subjects in 25m swimming.

Table-1

Mean distance-time, zonal time and zonal velocities of the subjects in 25m swimming

Distance	Mean time (s)	Zonal time (s)	Zonal velocity (m/s)
0	0	1.93	2.59
5	1.93±0.53		
10	4.62±0.44	2.69	1.86
15	7.36±0.43	2.74	1.82
20	10.05±0.54	2.69	1.89
25	13.01±0.38	2.96	1.69

From table values it is seen that the time for swimming was gradually increasing with distance and the mean time for 25m swimming was 13.01s. Distance –time graph has been presented in Fig.-1.

It is seen from the graph that the increase in time with increase in distance for 25m swimming was linear in nature. It is also seen from

Fig. 1: Distance-time curve for swimming

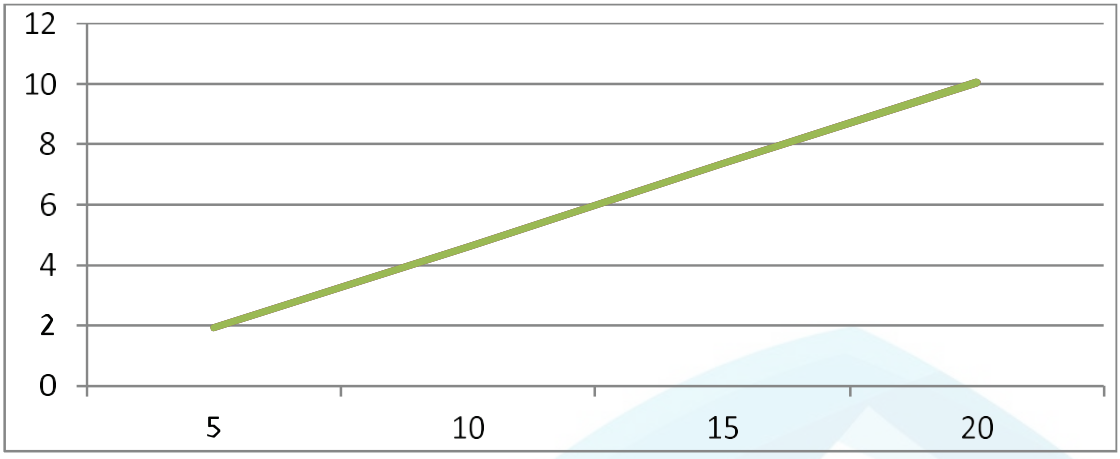
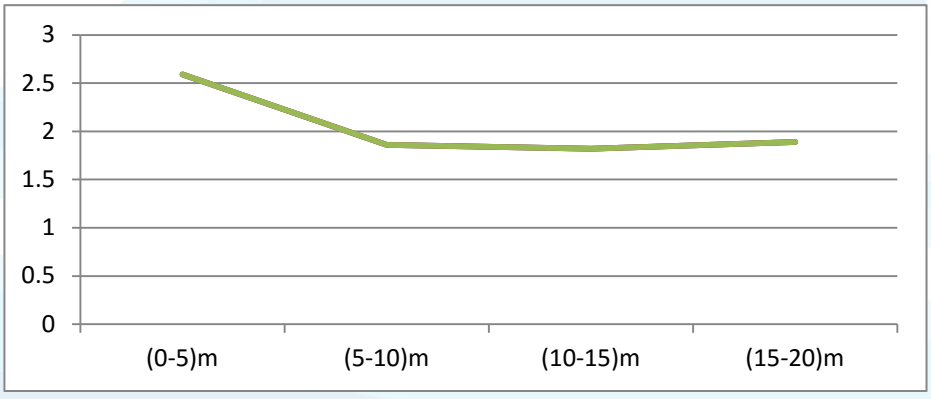


Table values that the zonal time for initial zone (0-5m) was the least of all. The mean values of zonal time were increasing with distance. The zonal velocity was calculated from zonal time information. Fig.2 represents the zonal velocity curve for 25m swimming.

Fig. 2: Zonal velocity curve for swimming



It is seen from the zonal velocity curve that the velocity at the starting zone was highest and afterwards the zonal velocities decreased during swimming.

CONCLUSION:

Within the limitations of the study, on the basis of results obtained, the following conclusions were drawn:

i) In swimming, the starting velocity remains high may be because of the starting dive and movement of the body through air.

ii) After start, the velocity reduces with the body becomes plunged into water for swimming forward.

iii) The nature of change in velocity during start in swimming differs from that of running. In running , the velocity gradually increases, but in swimming the velocity decreases just after start.

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Qualitative Research as a means for Performance Enhancement among Athletes

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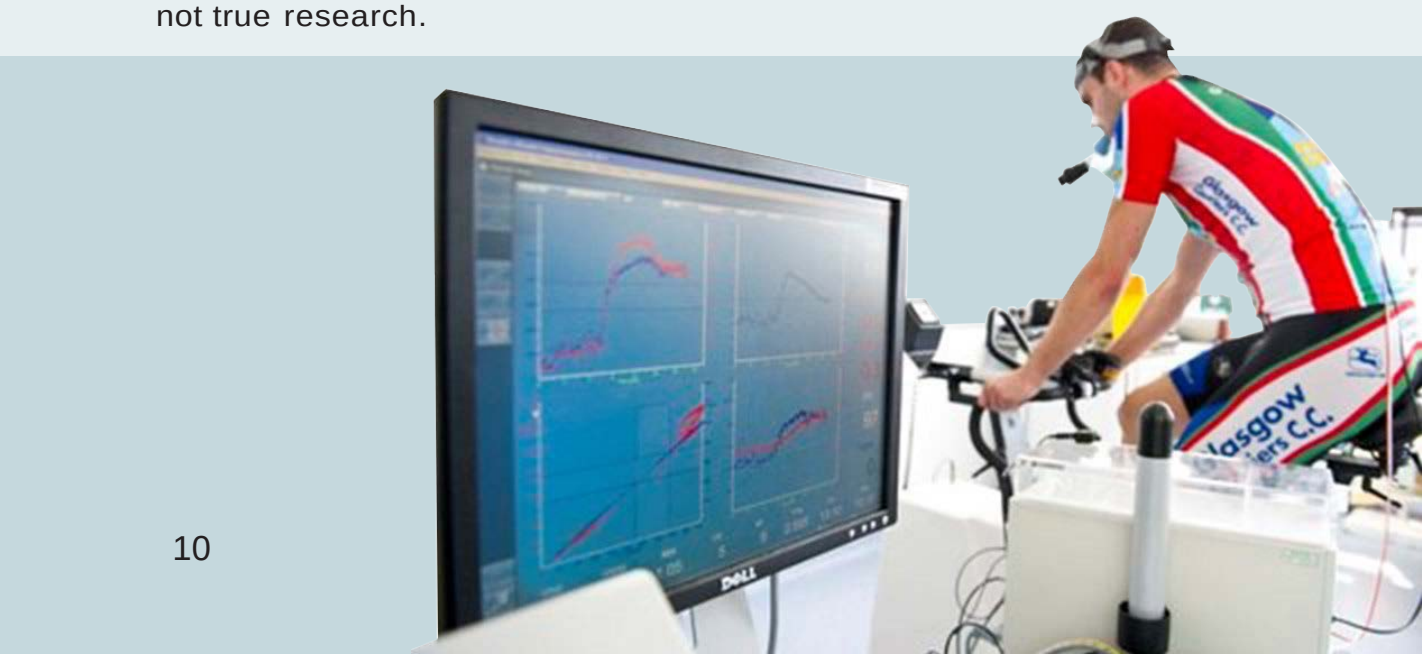
Research skills are the key to informed decision-making: understanding how to source, analyze, and assimilate information effectively can be the difference between a successful decision or a disastrous one.

Qualitative research takes an inductive approach and its methods were developed in the social sciences to enable researchers to study social and cultural phenomena. Qualitative research in sport psychology has been increasingly on the rise, thereby allowing a greater understanding of the participant's experiences. Sport psychology researchers, in particular, have used qualitative methodologies in an attempt to gain a greater understanding of the subjective experience of the athletes (e.g., Gould, Eklund, & Jackson, 1992; Munroe, Giacobbi, Hall, & Weinberg, 2000; Scanlan, Stein, & Ravizza, 1989). These sport specific qualitative studies have provided in-depth analyses of athletes' and coaches' experiences that might have gone otherwise untapped. Researchers have been encouraged to use this wealth of information in developing scales for psychometric analysis while consultants have been encouraged to develop more effective interventions. Denzin (1989) offered that the success of qualitative research depends on detailed accounts put forth by the investigator. Qualitative methodology is a means of studying the subjective experience of the individual, thereby offering a detailed description of how one perceives, creates, and interprets one's world. The goal of quantitative research is that of prediction, hypothesis testing, and control. In order for a study to be construed as quantitative, it has to satisfy four criteria including: (1) internal validity, the degree to which the results can be attributed to treatment, (2) external validity, the generalizability of the results, (3) reliability, the extent to which the findings can be replicated and, (4) objectivity, the extent to which the findings are free from bias (Guba & Lincoln, 1994). Many positivists felt that if the research did not satisfy the above four criteria, then it was not true research.



Whereas qualitative research methods typically include observations, narrative reports, and researcher-designed instruments (Goetz & LeCompte, 1984), it has been considered the exact opposite of quantitative research, which includes precise measurement, rigid control of variables and statistical analyses (Thomas & Nelson, 1998). Issues of reliability, validity, and objectivity have therefore been argued because qualitative research was not satisfying the above four criteria of quantitative research. Qualitative researchers have attempted to overcome these criticisms by developing their own language, such as triangulation and transferability, to verify their method of research (Creswell, 1994). Qualitative research provides insight into another person's reality. A qualitative research report provides the reader not with generalizations, but with tools for reflection. The knowledge produced is not a generalized law of behavior, but is new subjective knowledge constructed by the reader. The reader uses this new insight to create new meanings, and actions in his or her own life (Bain, 1995, p. 244).

METHODOLOGY APPLIED FOR QUALITATIVE DATA

Some of the methodologies that are associated with qualitative research are concerned with inner thoughts, attitudes, beliefs, emotions, intentions and experiences. It is not possible to study these in the form they exist within the human mind and so language is used to communicate these to others. Patton (2002: 478) recognised the role of language in qualitative data, stating that experience and perceptions were presented as readable narratives. Language provides abstract representations of thoughts, attitudes, beliefs, emotions, intentions and experiences. The

data used in qualitative research takes the form of words that are used in descriptions of events, scenes, experiences and emotions to convey a mental image of them (Strauss and Corbin, 1998: 15). The mental image developed by the audience of the description may not be the same as that of the person communicating the description. This means that the quality of the data (the description) will largely depend on the ability of the person providing the data to use language effectively. Therefore, qualitative data should be rich word-based detailed descriptions and explanations. Interviews, field notes and documents are examples of sources of qualitative data that are used in research (Patton, 2002: 4–5). Qualitative data also include images (Silverman, 2005: 241–67), audio recordings and video recordings of events.

INTERVIEW

There are different types of interview ranging from highly structured interviews to open interviews. The choice of interview type depends on the number and type of participants, the purpose of the interview study, whether or not there is an initial theoretical basis to the study as well as the breadth and depth of data required for analysis (Patton, 2002: 341–8). Before detailed analysis of interview data can occur, it is necessary to establish the trustworthiness of the data. Trustworthiness means that the data provided represent the participant's views and that the participant has been portrayed fairly. The trustworthiness of the analysis should also be established. The analysis of interview data and the analysis of other qualitative data have some differences due to the interview and account data coming directly from the participants, while observational data are descriptions made by the researcher.

OBSERVATION

Learning to pay attention (seeing and hearing important detail). 2. Practise in writing descriptively. 3. Disciplined recording of field notes. 4. Being able to distinguish between important details and less important background data. 5. Using rigorous methods to validate and triangulate observations.
6. Acknowledging the researcher's own strengths and limitations. Once an observational field study is planned and approved, there are various stages to field work which commence with entry into the field.

Trustworthiness is a quality of interview data that is concerned with the accuracy with which the research portrays the attitudes, motives and knowledge of the participants. There are academic journals where methods sections of most papers describing interview research include a specific subsection on trustworthiness. There are a number of steps that can be taken to establish the trustworthiness of interview data.

- Focus groups: soliciting observations from groups of people who share a similar attribute (for example, a group of women over 40) to give opinions on a topic
- Reviews: combing through scholarly literature or other published writings to determine attitudes towards a subject
- Observation: researchers watch people on their daily routine and make notes or recordings documenting their behaviour

The key features of qualitative research are that:

- It is not based upon numerical measurements and does not use numbers and statistical methods as key research indicators and tools. Instead, it uses words as the unit of analysis and often takes an in-depth, holistic or rounded approach to vents/issues/case studies.
- It tends to be associated with description.
- It tends to be associated with small-scale studies and a holistic perspective, often studying a single occurrence or small number of occurrences/case studies in great depth.
- It does not investigate causal hypotheses, instead developing and testing theories as part of an ongoing process.
- It tends to be associated with researcher involvement, with the researcher acting as a measurement tool.

- It tends to be associated with emergent research design, using a wide range of approaches and analyses in a fashion that is sometimes impossible to replicate; however, this does not invalidate the research.
- A common perception of qualitative research is that the emphasis is on discovery rather than proof.

Qualitative research methods are continually evolving, as patterns and styles of human interaction and communication change. Regardless of venue or medium, qualitative research is always based on open-ended queries; it uses in-depth probing to uncover the thoughts and feelings behind initial responses; and it applies insights and learning to the research process in real time.

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Role of the family in increasing women's sports participation in Bangladesh

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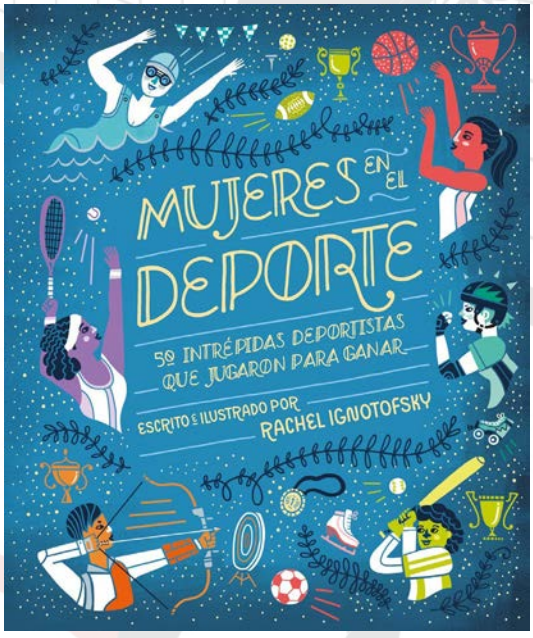
ABSTRACT

Women`s sports participation is not at a satisfactory level in Bangladesh. Family support is an essential factor which influences women sports participation in Bangladesh. This study describes the importance of the family role to increase women's sports participation in Bangladesh using the Case Study method. A detailed case study of three women athletes has been selected through purposive sampling from three defferent sports events to document their lives and sports activities and to understand the experience of women athletes from their point of view. The case studies have been conducted with those women who have been very successful to develop their sports careers at the National and International level. The study reveals that in the perspectives of socio- economical condition family could play an important role in increasing women sports participation in Bangladesh.

Keywords: Family, Women athlete, Sports participation

Introduction



Sports have existed for several thousand years. As the world population continues to increase along with technological advancements, sports continues to develop and involve more and more people across nearly all parts of the world. At present, sports stand widespread and outline an integral part of people's lives of all ages, irrespective of genders, social stratification, and all other similar classifications. Therefore, sports have high importance to most individuals, groups, and nations.

Although female sports participation has been rising dramatically in recent decades, yet
the level of involvement in the low and middle-income country like Bangladesh is inferior. The social benefits of participation in sports are particularly important for girls. Sports bring positive benefits to women and girls, contributing to their social and economic development.

WHO research findings show that sports and physical activities can be beneficial to the health of women and girls by reducing childhood diseases, but eighty percent of girls do not meet recommended levels of physical activity in the low and middle-income countries.

Women's step in the history of Bangladesh is not a prolonged one. One a small fraction of passionate women have come forward to contribute to the sports sector. Women athletes of Bangladesh have a significant successful contribution to the nation at the international level. Despite their success, women sports participation is far behind compared to male athletes. The purpose of this study was to describe the present condition of women athletes in Bangladesh. The objective of this study is to understand the role of family support for increasing women's sports participation in Bangladesh.

Operational Definition:

Women: The definition of women is "the women at the age of above 18 years have played successfully at the national and international level of sports competitions".

Sports Participation: The definition of sports participation is "women as being a player, competitor or person who participated in high levels of

participation in various sports competitions organized by the different sports federations of Bangladesh'.

Family: Family is a group in which both relations of Affinity (parents) and Consanguinity (Siblings) are found.

Methodology

The Case Study method adopted to explore the importance of family support to a women athlete to continue her sports career. A detailed case study of three women athletes has been selected through purposive sampling from three deferent sports events to document their lives and sports activities and to understand the experience of women athletes from their own point of view. The case studies have been conducted with those women athletes of Bangladesh who have been very successful to develop their sports careers at the National and International level. This study based on Constructivist paradigm which claims that truth is relative and that is dependent on one's perspective (Stake and Yin, 2003). The basic aim of Constructivism is to construct social reality (Searle, 1995). In this approach, while participants telling their stories to the researcher, a co-operational relationship builds up between them (Crabtree and Miller, 1999). Through these stories, the participants can describe their views of reality, and this enables the researcher to understand the participants' action better. (Lather, 1992).

Case Study-1

Sonia (30) heard a story about Nadia Comaneci from one of her school teachers when she was in class three. From then she desired to be like Nadia Comaneci on the day. Sonia is from Brahmanbaria district grown up in outside of Dhaka city. Her family consists of three siblings, which led by her father with strict rules and regulations. Despite her great eagerness she could not fulfill her desire to be an athlete because of the strict control of her family. So, after passing the S.S.C examination she got admitted into a College which had good reputations for organizing and participation girls' sports events. Sonia has started her journey at that age to sports till now she is continuing without any break. To maintain her livelihood and sports Sonia serves as a part-time Physical Education teacher in an English medium school in Dhaka. At 5:30 in the morning, Sonia leaves her home for her job. She entered the Palton wooden floor gymnasium at 3:00 PM where she practices till 6:00 PM. Then she goes to Basundara residential area for private tuition purpose. Sonia returned to her home at 11 PM. Despite all the pressures around

her, she manages to make the tough journey from her home town Narayangonj to Dhaka and comes to the gymnasium every day. Sonia deprived of sports in her childhood is now dreaming of being a good coach. She achieved the Asian Football Federation Coaching Certificate from Srilanka. Sonia could not be a Nadia Comaneci, but she is the symbol of a warrior athlete.

Case Study-2

That was Rasheda's (18) first tournament in Dhaka. She came from Satkhira to participate in the National competition. But the journey was not so easy for her. Her parents did not encourage her to participate in sports. So, they did not give her permission to travel to Dhaka with her team. But Rasheda was determined to participate in that tournament. She began starvation. After two days, her father permitted her to go to Dhaka. Sometimes Rasheda thought that it would be better if she were a boy. Boys have all the scope to participate in sports in Bangladesh. Being a girl, she has to face many obstructions to participate in sports. After school she has to help her mother in her housework like cooking, washing clothes and wash the dish after every meal. She had a rare chance to practice her sports event even once in a week. Besides that, she knows that there is a strong possibility to be married off after her

Secondary School Certificate exam. Rasheda is not agreed to marry now. She aims to get herself admitted into a college in Dhaka where she will attend every tournament and also continue her study. But she knows that it is only a dream and it will not be true ever in her life. Rasheda loves to dream at every night that her college is playing in the final match in the stadium with full of spectators, and her team won the game where she became the best player of the tournament. Her father came down from the gallery and embarrassed her, saying that he would never think again about her marriage before the end of higher study. Hearing this from her father, Rasheda began to weep with joy, but her tears never drop on her father's shoulder, it only makes wet her pillow every night.

Case Study-3

Momena begged to her mother to give her permission to participate in sports promising that she would not bring any bad name for her family. Momena had another three sisters, and among them, she was the only hoop for her illiterate parents. So, for them, it was tough to give her permission to participate in sports. Her parents were also afraid of social disgrace. With lots of conditions and promises, Momena could manage their permission. And she kept her promises. She was

designated as ‘Best Player’ in her first International tournament. This success brought honor to her family and made economically solvent. That year she earned a handsome amount of money from her sports event. She gave all of this money to her parents. Momena’s father who worked on a daily basis to the agricultural field now purchased several bigha’s of land for his own. Watching her father’s cultivation in his paddy field, Momena became very happy. She felt like the most fortunate women of this earth. Her family felt very proud watching her playing in the National team.

Discussion

Organized youth sports require time, money, and organizational skills. And these usually come from parents. Therefore, participating in organized sports is often a family affair. Ninety percent of childrens take part in some form of organized sports between the ages of 5 and 17 (Jellineck & Durant, 2004). In a developing country, most of the parents see organized sports as an essential extension of their control over their children and as settings in which their children gain critical developmental experiences. In the USA, Most of the family spend a significant portion of their leisure time in sports activities (Stracher, 2015). Parents realize that it is their essential responsibility to guide children to sports so that

they prepare for the rest of their lives. They believe that sports lead their children to achieve critical life characteristics like hard work, goal orientation, and ability to perform at a high level (Robert, 1994). In their study, Ewing & Seefeldt (1996) found that at the initial stage of sports participation children took sports as a tool of fun and enjoyment, but in one step they gave their best effort to show their high performance in sports so that their parent feel proud for their sports achievements. The degree of parental involvement regarding children sports participation is equally high because they both believe that their children achieve lifelong learning through sports participation (Stein, Raedeke & Glenn, 1999). Research shows that if children, especially for girls at the age of 8 to 10 years, have a great attraction in sports participation. If they are not motivated in sports then it is rare to find them in organized sports at the college or university level. At that stage, children are motivated in sports by the family members and their educational institutes. In a recent research Fredricks & Excels quoted three types of parents' role in sports like provider, interpreter and role model.

Bangladesh is a patriarchy society. In most cases, decisions are made by male members, mainly father or elder brother where mother or sister played either the role of information provider or spectators (Panday, 2013). In Bangladesh, parents have less interest in their children, especially for girl's sports participation. Most of the parents want a good academic result from their children. They always give pressure on their children to study more. Girls have limited access to sports in both rural and urban areas compare to the boys (Nasrin, 2006).

In Bangladesh, most of the women athletes come to sports from the lower- middle class and middle-class family (Ahmed, 2014). Parents of these families think that good academic result is the pre-requisite for achieving a beautiful and solvent bridal for their girls. They do not permit their daughter to go outside from home for training camps or competitions because they had to face some social contempt from their neighbors and relatives. A recent study shows that during their childhood, forty-four percents of women athletes of Bangladesh has been criticized for their sports participation by their family members and neighbors (Ahmed, 2014).

This study demonstrates that Sonia deprived of sports participation during her childhood. When she admitted into college and practice hard to build a successful career in sports, she did not get any support from her family. She managed her college tuition fees and practice expenditures with private tuitions. Momena could manage family support after lots of conditions and promises. She became successful

at her first tournament, which made her family economically solvent. But Rasheda might not be fortunate as Momena. She faced the same condition as Sonia faced at her childhood. Her journey toward sports was very much uncertain because in Bangladesh the mean age of girls' marriage is less than 15 years and more than seventy percent of girls got married before 17.

Conclusion

The present study reveals that in the perspectives of socio-economical condition, the family could play an essential role in increasing women sports participation in Bangladesh. A limitation of this study is it's sample size, which consists of three women athletes from three different sports events. This limits the scope of generalization the finding of this study and also limits the ability to discuss policy implications for increasing women's sports participation in Bangladesh. Despite, the results of this study provides an insight view about the present conditions of women's sports participation in Bangladesh which will contribute to carrying out further research at a large scale regarding women sports of Bangladesh.

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Analyzing the Effect of Psychological Skill Training Program on Young Cricketers and Swimmers of BKSP

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** Nusrat Sharmeen

Abstract

Psychological Skill Training is a systematic and constant practice of mental skills for managing the performance quality of a sportsperson. Three higher secondary school cricketers and three secondary school swimmers of BKSP were selected to understand and analyze the effect of Psychological Skill Training Program. These two groups participated in a 7-day training program where variables like Anxiety Control, Concentration, Confidence, Mental Preparation, Motivation and Team Emphasis were measured through written questionnaire tests (at the very beginning and at the very end of the program). The result indicated some gradual uplifts of perception more among the Swimmers than the cricketers.

Key words: Psychological Skill Training, Mental skills, Perception

Introduction

Very often in our country it has been seen that the Physiological skills of a sportsperson and team are getting the most priority to ensure good performance in competitive sports field. And, the need of the psychological sharpness most often comes to place when in case of extremely bad patches. Though, many times lack of physical skills is not the reason of the real problem rather a lack of mental skills is the cause (Weinberg and Gould, 1999). These mental skills can be developed through psychological skill training (PST).

Symptoms like choking under pressure, often being depressed, lack of motivation during intense exercise are the indicators of psychological dysfunction which affect a sportsperson's physical skills. These functions are also cause of fluctuation in daily performance.

In any sports a player's success or failure depends on the combination of Motor skills (Strength, speed, balance, flexibility, and coordinative abilities) and Mental strength (e.g., Concentration, confidence, anxiety management, motivation etc.). Most Physical and Mental coaches consider that sport is at least 50% mental, and some particular sports like golf, tennis, and figure skating are consistently been viewed as 80% to 90% mental (Weinberg and Gould, 1999). Jimmy Connors, known for his mental persistence and toughness, has often stated that professional tennis is 95% mental. Even, Cricket as stated as an optical game, has

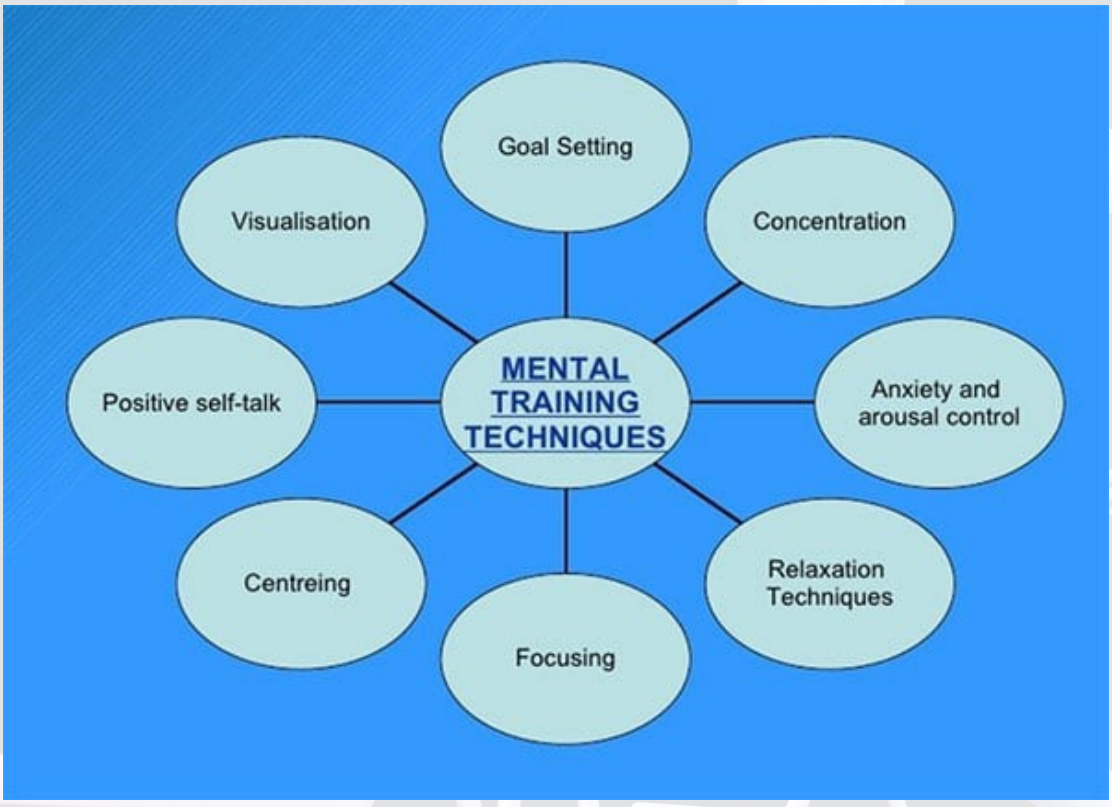
one of its calmest cricketer, MS Dhoni been tagged by a special name “Mr. Cool”. There are various examples in his career, where MS handled critical situations with his unorthodox style of playing, armed with his mental strength. There is also the example of how one of

our greatest cricketer Mashrafe Bin Mortaza’s thirst for playing despite almost losing his career due to several knee injuries. Same goes as with swimmers as they keep the mental strength outside the very little time in the actual battle field to fight for their tenacious desire to win medals for their country.

Despite being not so much naturally demanding there are several myths circulated on the use of psychological techniques in optimizing performance (Gould & Eklund, 1991). These myths like PST only for problem athletes or it provides quick fix solution or it’s only for elite athletes - are only confusing the ability of the sports psychology consultants to help athletes maximize their performance.

PST has expanded its education from two sources which are original research studies conducted on elite athletes and the outcome knowledge of experienced coach and athletes. From there, several researches that have compared successful and less successful athletes in terms of psychological skills consistently resulted that more successful athletes had better concentration, higher levels of self-confidence, more positive towards task related ideas and lower level of anxiety (Gould, Eklund, & Jackson, 1992a; 1992b).

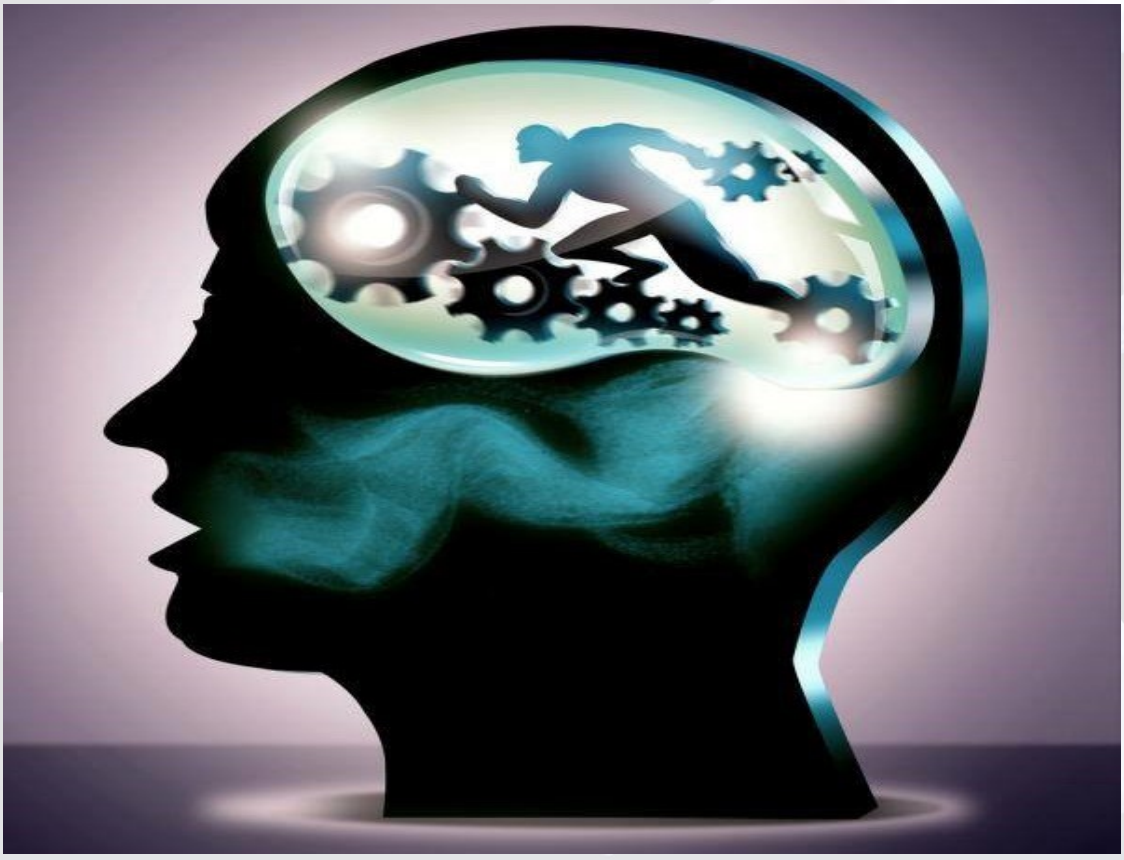
Besides the PST training, coach of a team or group plays an essential role as she/he can see the players on a regular basis, whereas a sports psychologist doesn’t get that much time to observe the players. So in this case, every coach, teacher and exercise also needs to use the psychological skills and strategies on a daily basis so that the players can at least experience some sort passive guidelines. And, Education based psychological skill oriented syllabus can be included and made them interesting to have the willingness from the student to be implanted in academics. Lastly, according to the vibe of the coach and even players, a sports psychology teacher or a mental coach needs to assess the players and environment to keep up the mental courage among the group.



Materials and Methods

The study was conducted on three swimmers who were selected on the basis of their poor performance on the PSI (Psychological Skill Inventory for Sport (PSI) was developed by Mahoney, Gabbiel, Perkins (1987). Questionnaire test in the regional division of BKSP. On the other hand, the three cricketers were selected randomly from the cricket department of BKSP. In order to fulfill the objective of the program, a balance of combination between two groups was tried to maintain. It was a 7-day long training session. Another good thing of the program was that the participants were allowed to have leave from their respective classes for an entire week to concentrate more in this program. The study subjects were first given a brief orientation on the whole topic. Then, through three distinct phases, which involved Education, Acquisition and Practice it was tried to complete. To hold the players' attention for the whole program and to make them understand properly, various means of learning tools like i.e. video presentations, meditational & spiritual music, motivational songs, inspirational movies, meditation sessions, brain games, imagery trainings were used. They were advised to practice the activities during

their leisure time so that they can handle themselves better on their own in challenging situations. It was basically done to make them realize that these psychological skills cannot be acquired easily as it was thought; it needs more practice and persistency.



Besides the means of learning tools the training programs exercises content of the three distinct phases were:

- breathing exercises and techniques
  - i) shallow breathing
  - ii) deep breathing
  - iii) 1:2 breathe in and breathe out exercise
  - iv) Abdominal breathing, breathing from diaphragm
- progressive muscle relaxation demonstration and other relaxation exercises
- imagery workout with questionnaire

i) vivid and detailed imagery exercise

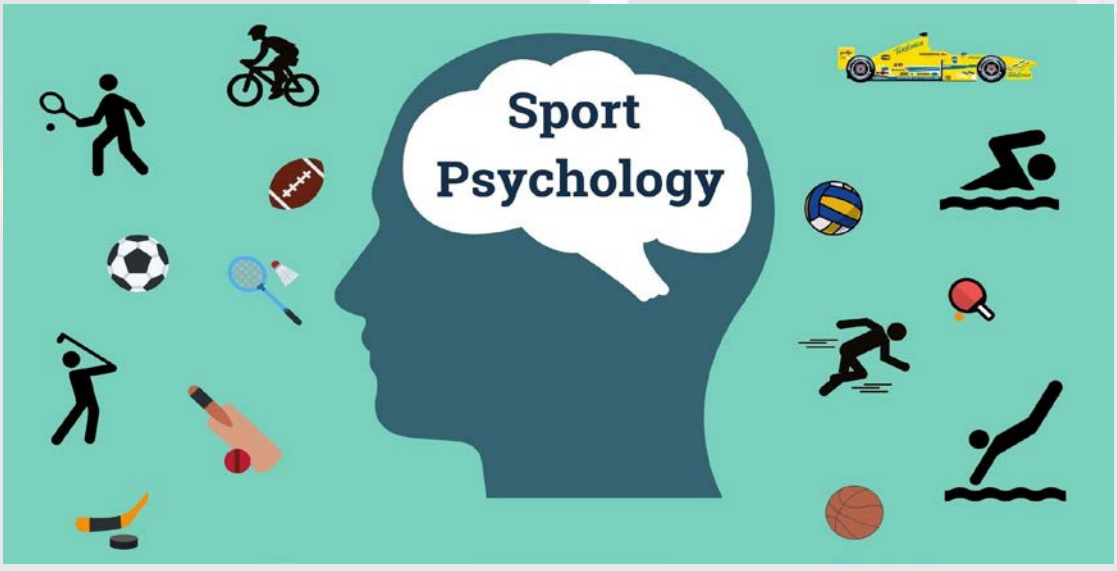
ii) incorporating all senses (see, feel, hear, smell, and taste)

iii) pre match situation to on field imagery exercise

- concentration grid exercise with numbers
- performance checklist states exercise
- arousal control and regulation tactics discussion

These topics were discussed verbally and visually to the participants for their better understanding of this subject and to grow their interest in it. Besides that, the test given by the participants were with hardly any theoretical or practical knowledge of these topics whereas it is believed that psychological skill strength also doesn't work easily for longer period of time until it has been learned and practiced.

The work was done by taking a written questionnaire test at the very beginning of the training program and at the very end of the program. The Questionnaire on six different Sports Psychology variables was developed by Gabriel, & Perkins, 1987. The variables were Anxiety Control, Concentration, Confidence, Mental Preparation, Motivation and Team Emphasis. The answer sheets of the sports persons were examined on the basis of the norm set by the developer of the questionnaires. Besides, Mean, Standard Deviation, t stat and p value was calculated to analyze the statistical difference of individual sportsperson's impression on the whole training program.



Result Analysis and Discussion

The first set of table was prepared by the Gabriel, & Perkins's norm rank set for the questionnaire and, the second table was done by various mode of statistical measurement to compare the difference of the answers before and after the training program.

Table Set 1

BKSP Swimmers

	Before Training					
Rakibul Islam Shanto	Anxiety Control	Concentration	Confidence	Mental Preparation	Motivation	Team Emphasis
	Good (Scored 30)	Moderate (Scored 15)	Good (Scored 28)	Poor (Scored 8)	Moderate (Scored 15)	Good (Scored 21)
	After Training					
	Very Good (Scored 33)	Moderate (Scored 15)	Very Good (Score 33)	Moderate (Scored 13)	Good (Scored 20)	Good (Scored 19)
Remarks	Improved	Same	Improved	Improved	Improved	Same

	Before Training					
Rahim Mia	Poor (Scored 13)	Moderate (Scored 13)	Good (Scored 27)	Moderate (Scored 14)	Moderate (Scored 16)	Good (Scored 18)
	After Training					
	Moderate (Scored 18)	Moderate (Scored 12)	Moderate (Scored 22)	Moderate (Scored 15)	Moderate (Scored 13)	Good (Scored 20)
Remarks	Improved	Same	decreased	Same	Same	Same

	Before Training					
Niloy Mia	Poor (Scored 11)	Moderate (Scored 11)	Good (Scored 28)	Poor (Scored 8)	Good (Scored 19)	Good (Scored 20)
	After Training					
	Good (Scored 25)	Moderate (Scored 12)	Very Good (Scored 32)	Moderate (Scored 10)	Good (Scored 18)	Good (Scored 19)
Remarks	Improved	Same	Improved	Improved	Same	Same

BKSP Cricketers

	Before Training					
Shahriar Kabir Shubho	Anxiety Control	Concentration	Confidence	Mental Preparation	Motivation	Team Emphasis
	Moderate (Scored 23)	Poor (Scored 10)	Good (Scored 28)	Poor (Scored 7)	Moderate (Scored 14)	Moderate (Scored 13)
	After Training					
	Moderate (Scored 21)	Moderate (Scored 11)	Good (Scored 27)	Poor (Scored 9)	Moderate (Scored 17)	Moderate (Scored 12)
Remarks	Same	Same	Same	Improved	Same	Same

	Before Training					
Mahfil Islam Meraj	Anxiety Control	Concentration	Confidence	Mental Preparation	Motivation	Team Emphasis
	Poor (Scored 11)	Moderate (Scored 12)	Moderate (Scored 22)	Moderate (Scored 11)	Moderate (Scored 15)	Moderate (Scored 16)
	After Training					
	Moderate (Scored 21)	Moderate (Scored 12)	Moderate (Scored 20)	Moderate (Scored 12)	Moderate (Scored 12)	Moderate (Scored 16)
Remarks	Improved	Same	Same	Same	Same	Same

	Before Training					
Rohan Ahmed	Anxiety Control	Concentration	Confidence	Mental Preparation	Motivation	Team Emphasis
	Moderate (Scored 21)	Good (Scored 19)	Good (Scored 23)	Moderate (Scored 12)	Moderate (Scored 15)	Good (Scored 23)
	After Training					
	Poor (Scored 13)	Good (Scored 16)	Moderate (Scored 21)	Moderate (Scored 14)	Moderate (Scored 15)	Good (Scored 18)
Remarks	Decreased	Same	Decreased	Same	Same	Same

After comparing the variables written score before and after training in total for 30 times, only three times a participant's level has decreased and 10 times their perception has changed to an improved level and in the rest 23 times it was same as before. So, there was a sign of positive improvement and stable perception among the participants rather than fall to negative perception. And, out of the 10 level of improvement 8 was achieved by the swimmers showing that their mental balance was better than the cricketers.

Table 2

Name	Rahim		Rakib		Niloy		Rohan		Shuvo		Meraj	
	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
Mean	2.156	2.222	2.622	2.956	2.156	2.667	2.600	2.156	2.156	2.178	1.978	2.044
SD	1.692	1.363	1.403	1.507	1.783	1.567	1.405	1.107	1.205	1.051	0.941	0.767
Df	88.00		88.00		88.00		88.00		88.00		88.00	
t Stat	-0.206		-1.086		-1.444		1.667		-0.093		-0.368	
p Value	0.837		0.280		0.152		0.099		0.926		0.714	
t Critical two-tail	1.987		1.987		1.987		1.987		1.987		1.987	

In the above statistical table, if we can analyze the mean number it is expressing that out of six participants five a participant's (except Rohan) average mean has increased after training which is indicating more positive response to their answers. Standard Deviations are also less than before training (5 times) so that we can say that the scattering has become low which is a positive sign also. Here, all the T value is less than T tabulated value so that we accept null hypothesis that there is no change after Training. And, as P value is greater than regular .05 (P Value .837>.05) we can conclude that at this point there occurs not that much significant differences in the performance after training.

Conclusion

Though the results are showing gradual improvement among the participants but still sports psychology field needs to be flourished more as it is still a new field in connection with different sports. Besides that, more game specific sports psychologist needs to be there in the field in order to connect better with the sportsperson with general knowledge and ideas. Lastly, as the myth is that it actually doesn't give quick solution, collectively we need to be patient enough to see good future performance from our sportsperson with sports psychology's active involvement.

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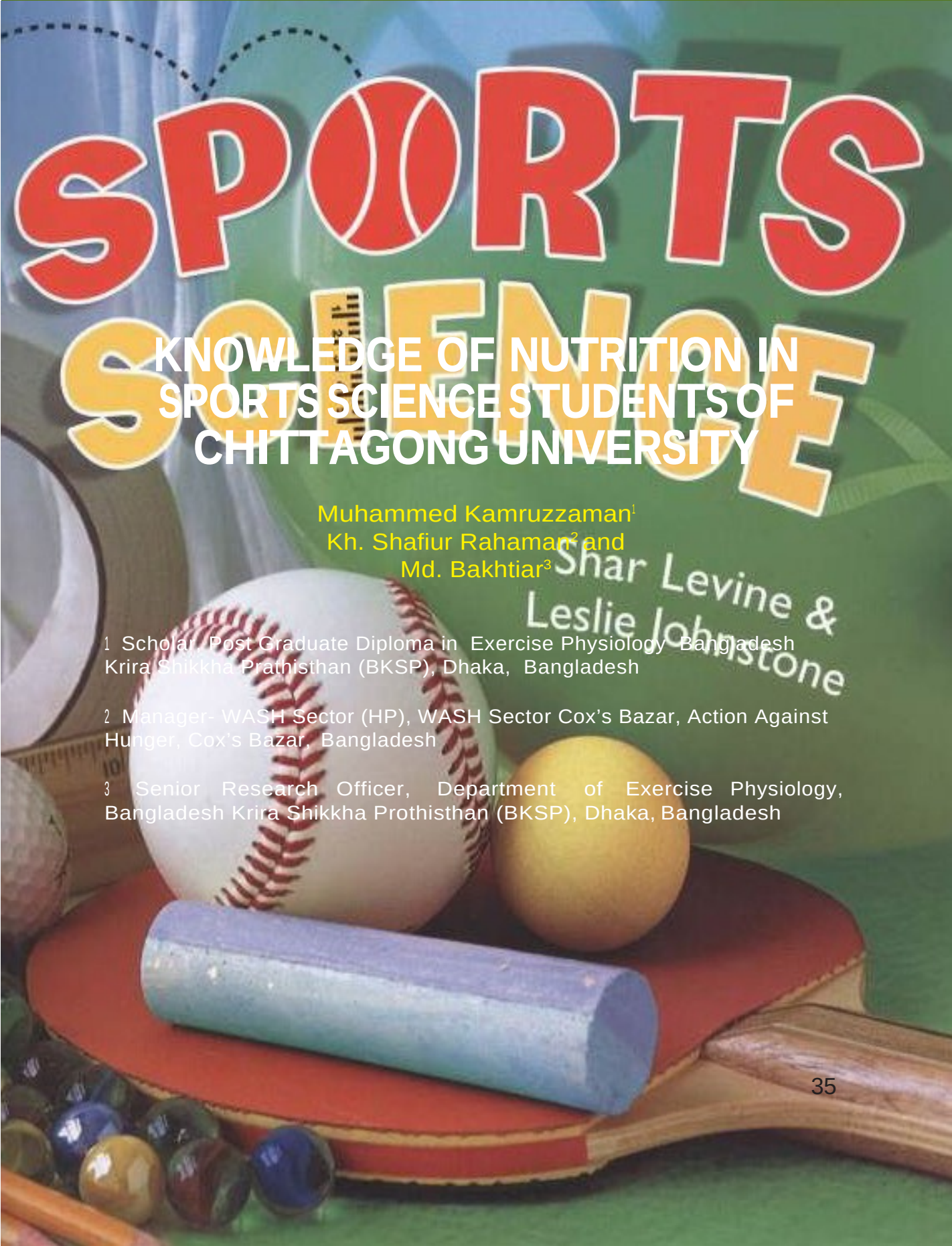

KNOWLEDGE OF NUTRITION IN SPORTS SCIENCE STUDENTS OF CHITTAGONG UNIVERSITY

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Abstract

Individuals who have knowledge on the importance of adequate and balanced diet and reflect this knowledge to their behaviors are considered to be more successful in sports life. The present study aims to evaluate the nutrition knowledge of students receiving sports education in Sports Sciences. The study sample consists of 45 voluntary students from the Sports Science Departments of Chittagong University. The questionnaire used in the study included a demographic section, nutrition related section and 21 questions on true-false nutrition knowledge. The research data were collected through a self-administered. For the statistical analyses of the data, tables were prepared to show mean, standard deviation ($\bar{X} \pm SD$) and percentage (%) values. In order to determine the nutrition knowledge of students, the "independent t test" was used for nutrition lesson and gender. The mean ± SD (Standard Deviation) age of our participant was 22.07 ± 0.92 with a range of 20-24 years. Internet and books were the major source of information on nutrition. The mean value about the nutrition knowledge was 13.67 ± 1.89. More than half of the participants have good nutrition knowledge (n=28, 62.2%). There was no variable significantly associated with knowledge score. A large portion of students lacks the necessary knowledge on nutrition. It is emphasized to educate students about nutrition in different methods. Further research should be carried out on educational intervention on nutrition.

Keywords: Nutrition, Knowledge, Sports Science

Introduction

Nutrition is a very important factor in the performance and health of all athletes (Hornstrom et al., 2011). In addition to nutrition, body composition plays a role in the performance of athletes. Adolescent athletes need to be well nourished to support normal growth, development and performance. Nutritional status is one of the determinants for physical fitness and training of a sports personnel (Beals & Manore, 1998). Indeed, nutrition affects almost every process in the body involved in energy production and recovery from exercise. To understand and apply the principles of sport nutrition, some basic understanding of nutrition is necessary. This includes the knowledge of biochemical and physiological processes that occur in different cells and tissues as well as how these processes are integrated throughout the body (Jeukendrup & Gleeson, 2004). Physical performance is influenced by nutrition providing essential elements to gain potential usefulness of

food (McArdle et al., 2002). Proper nutrient intake improves physical performance, on the other hand, nutrient deficiencies consequences poor athletic performance (Jacobson & Aldana, 1992; Burke et al., 2004). Healthy dietary pattern and adequate nutrition are necessary for any adolescent's life, especially those who are involved in sports (Croll et al., 2006). Though elite athletes were concerned regarding proper nutrition for their performance previously (Hornstrom et al., 2011) but now it is understood by all athlete that nutrition is an integral part of training program (Burke et al., 2004; Rosenbloom & Skinner, 2006). In adolescent stage (13-18 years) energy requirement increases and varies based on gender and activity and those higher demands are poorly met in adolescent athletes (Croll et al., 2006; Rosenbloom & Skinner, 2006). The main goal of nutrition plans is to obtain the appropriate and necessary nutrition to remain healthy, to be physically prepared and to lead a healthy life. For this reason, to promote the health level of a society, and the attitudes of its people, must be taken into account. Given that one of the main goals of universities is to broaden the knowledge of the people in a society, the enhancement of the nutrition attitudes, knowledge and practices of its students is of high importance, as this will subsequently lead to a more food conscious society and more healthy people. Some studies have shown that most students are not familiar with the healthy foods needed for their body in different conditions (Cotugna et al., 2005; O'Dea, 2004). Adolescent from low income communities lacks educational materials which results in insufficient knowledge of sports nutrition and supplementation to make health conscience decisions. Effect of education on nutrition knowledge and attitude has also not studied well. Though study suggest that short-term education on nutrition can enhance supplementation knowledge (Little et al., 2002). Prospective teachers and coaches receiving education at higher institutes of sports increase their knowledge on nutrition and transfer their knowledge to next generations. Therefore, the quality of the education they receive is especially important. This study aims to investigate the nutrition knowledge of students receiving sports education in this particular university.

Materials and Methods

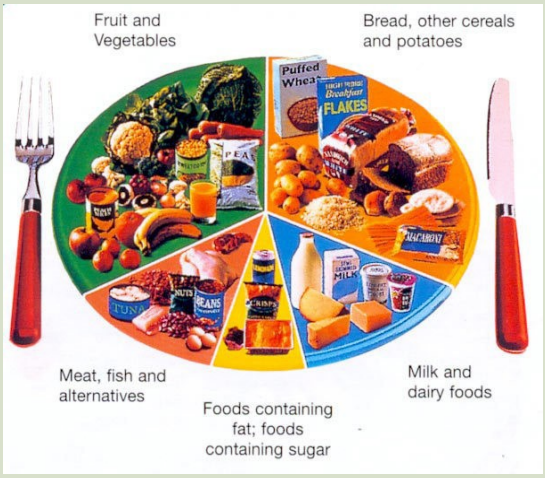
A descriptive, cross-sectional study was conducted at the Department of Physical Education and Sports Science, Chittagong University. Senior students of the department of Physical Education and Sports Science, Chittagong University were our target population. This is a public university located in the Chittagong city of Bangladesh. It is a Government-funded autonomous institution. The study duration

was from January 2019 to March 2019. Data were collected at the Department of Physical Education and Sports Science, Chittagong University. Participants were chosen from the department of Physical Education and Sports Science by using quota sampling method. Only senior students of this department were particularly included in this study. Newly joined athlete could bias our hypothesis. Participants who were critically ill or diagnosed as malnourished have been excluded from this study. Participants unwilling to take part were also excluded. Before the data collection, the Principal Investigator (PI) has visited the study area and had a short meeting with corresponding faculty members, and received permission to collect data. A self-administered questionnaire was prepared for data collection. After permission was received, we conducted a pilot survey of the questionnaire and revised it, as suggested, for the final data collection.

Questionnaire Design and Scoring

A semi-structured questionnaire was used for pretesting and necessary modification was made according to the necessity. The questionnaire consisted of two parts including demographic information of students and knowledge towards nutrition. The first section was created to obtain information about

demographics, to identify if the students had any prior opportunity to learn about nutrition and to identify which sources, they acquired nutrition information from. The second section contained statements related to nutrition knowledge and the third section had statements used to evaluate attitudes toward nutrition. In order to determine the nutrition knowledge, 21 statements were given which could be replied as “true”, “false”. The correct answer was given a score of “1” and the incorrect answers were given a score of “0”. The knowledge section was adapted from previous study (Ozdogan & Ozcelik, 2011). A scoring system was developed to show the results of knowledge based on the response we have got from the participants. Sports Science student’s knowledge score was calculated according to the response out of the 21 specific questions in knowledge sections. Accordingly, the mean score of nutrition knowledge score was used to decide the cutoffs of the rank. The score was then divided into 2 categories (good and poor) based on the mean score.



Statistical analysis

Data was then entered into SPSS Version 23 (SPSS Inc., Chicago, IL) software for analysis. Statistical analysis was done using the mean and standard deviation of numerical components. Frequency distribution was used to demonstrate nutrition knowledge score. Means, standard deviation and percent were calculated for the scores from the nutrition knowledge. One-way analysis of variance (ANOVA) was used to compare means between Knowledge factors. To compare nutrition knowledge and attitude between genders, independent t test was used. A p value of ≤ 0.05 will be considered to be significant for statistical results.

Results

Demographic Details: A total number of 45 students from the Department of Physical Education and Sports Sciences at Chittagong University have been participated in this research. All the participants were below 24 years of age. The mean ± SD (Standard Deviation) age of our participant was 22.07 ± 0.92with a range of 20-24 years. Majority of the students were 22 years old (44.4%) followed by 23 years old (31.1%). Among them, a vast majority of our participants were male (n=40, 88.9%). Number of females were very few (n=5, 11.1%). A vast majority of our participants were Muslims (n=34, 75.6%) followed by Hindu (n=7, 15.6%). Very few of them were Christians and Buddhists. We did not find any other religions such as tribal group or ethnic people among our participants. According to our inclusion criteria, we have only included senior students of the university to take part in this research. We have found most of the students were studying in the 3rd year of their study followed by 4th year (final year).

Nutrition Education Related Details: A vast majority of them have replied that, they never get any nutritional education or training during education at the department (n=40, 88.9%). Very few of them have replied that they have had nutritional training before. Participants who have received training, we further asked them that how long ago they have received their last training or education in nutrition. Only 5 participants (11.1%) have previous exposure to nutrition training, among them only one participant have had their training 6 months ago. Four of them have had their previous nutrition training before 1 year.

Source of Information on Nutrition: Nearly sixty percent respondents have replied that they get information about nutrition from internet (n=25, 55.6%). Nearly thirty percent of them replied that coaches were their primary source of information regarding nutrition (n=13). Teachers were the source of information for 15 participants (35.6%). Very few of them have mentioned about other reliable sources such as doctors, nutritionists, health magazines etc.

Nutrition Knowledge: The questionnaire consisted of 21 nutrition knowledge statements; the highest potential score that could be attained

was 21 and the lowest score was 0. The mean ± Standard Deviation (SD) nutrition knowledge total score for the entire sample was 13.67 ± 1.89. The high score was 17 whilst the lowest score was 8. We have divided the knowledge score into two categories as good and poor knowledge based on the mean score of the participants. More than half of the participants have good nutrition knowledge (n=28, 62.2%) whilst nearly forty-three percent respondents have poor knowledge level on nutrition (n=17, 37.8%). In this research, the mean knowledge score between boys and girls did not differ significantly (p= 0.681). Male participant had their mean ± Standard Deviation (SD) knowledge score 13.36 ± 1.87 which was slightly lower than their counterpart. We also did not find any significant difference in knowledge score between the 3rd year and 4th year (Final) students (p=796). Nutrition knowledge also did not differ significantly among students with different religions (p= 0.122). Though Muslims and Buddhists students had higher mean score but it was not statistically significant. Previous training on nutrition did not have any significant influence on nutrition knowledge of our respondents (p=0.185). This is because, a vast majority of them did not receive any training or exposure to nutrition education.

Discussion

The present study investigated the nutrition knowledge of students receiving sport education in Chittagong University considering whether they took nutrition class (3rd and 4th year students) and gender. In addition to the energy and food elements needed by regular university students, there are some extra requirements for sports type of these students. It is considered that people with inadequate knowledge of nutrition will also be unaware of additional nutrient needs. Very limited data or research findings exists that determines the current knowledge on nutrition among university students in Bangladeshi context. The present study investigated the nutrition knowledge in sports science students of Chittagong University, which is the first attempt to the best of our knowledge.

Participants in this study receives information from variety of sources. The most common sources were textbooks, teachers and parents. Our result find consistency with Hoogenboom et al. (2009). The least common sources include trainer, doctor and nutritionist. But in this research, internet was the most common source of nutrition related information as per the response of study participants. Nearly half of the participants (48.9%) correctly answered the statement “eating carbohydrates makes you fat” as false. In another study, the majority

of males (74.0%) and females (75.0%) correctly answered the same statement. The response to the statement of carbohydrates and the relationship between carbohydrates and body fat are encouraging, as many believe that those trying to improve body composition should avoid carbohydrates (Zawila et. al., 2003).

The sportsmen are inclined to think that sweets would provide quick energy just before competition. This prejudice may lead to rely on candy to provide the energy that should come from complex carbohydrates. The underlying goal of eating candies before exercise is to boost energy and minimize insulin surge that transports sugar out of the bloodstream into the muscles. Simple sugars induce high insulin, and when used before exercise, this can lower the blood sugar and elicit the fatigue as well as lightheadedness associated with hypoglycemia (Juzwiak & Ancona-Lopez, 2004; Ersoy, 2004). A big proportion of the students (57.8%) correctly answered the statement “basic sugars like cube sugar, jam, and honey are the most suitable energy sources for sportsmen” as false. Carbohydrates are the source of muscle energy followed by fats and proteins, whereas vitamins, minerals, and water are also essential for health but do not provide energy (Clark, 2018). It is important for athletes to consume enough carbohydrates to maintain blood glucose and to replace glycogen stores (Manore et. al., 2000; Lemon, 1998). A vast majority of the participants (93.3%) correctly answered the statement “glycogen muscles store carbohydrate”. In a study carried out by Juzwiak and Ancona-Lopez (Juzwiak & Ancona-Lopez, 2004), an important part of the participants (74.0%) gave correct answers to the statement “glycogen levels (stored carbohydrate) can affect the energy level available for exercise”.

The general consensus among nutritionists is that calories from fat should be maintained at approximately 30% of energy intake (Yeung & Laquatra, 2003). There is no benefit for athletes in fat intake less than 15% or greater than 30% of total calories (Rodriguez et. al., 2009). A significant proportion of the participants (82.2%) correctly answered the statement “fats have important roles in the body”. Body fats have many functions like providing fuel to most tissues, working as an energy reserve, insulating the body and nerve fibers, supporting and protecting vital organs, lubricating body tissues, and creating an integral part of cell membranes (Lutz & Przytulski, 2001).

Iron plays an important role in exercise as it is required for the formation of hemoglobin and myoglobin, which bind oxygen in the body, and for enzymes involved in energy production. Iron depletion (low iron stores) is one of the most prevalent nutrient deficiencies observed in

athletes, especially in female athletes (Yeung & Laquatra, 2003). Many female athletes and non-athletes consume inadequate amounts of iron (Driskell, 2000). A vast majority participant (82.2%) correctly answered the statement “Iron-deficiency anemia results in a decrease in the amount of oxygen that can be carried in the blood”. Athletes should be screened periodically to assess iron status. Changes in iron storage (low-serum ferritin concentrations) occur first, followed by low-iron transport (low serum iron concentrations), and eventually result in iron deficiency anemia (Rodriguez et. al., 2009). While the absorption ratio of iron in plant food is around 4-15%, it is 25-30% in meat (Baysal, 2007). In the present study, less than half of the subjects (22.2%) answered the statement “iron in meat is absorbed at the same rate as iron in a plant food” as false. Over half of the students (93.3%) correctly answered the statement “the body can synthesize vitamin D upon exposure to the sun”. The two primary sources of vitamin D are fortified foods like milk, and ultraviolet conversion in the skin, which produces the vitamin (Manore et. al., 2000).

Over half of the students (68.9%) correctly answered the statement “vitamin supplementation is recommended for all physically active people” as false. The reason why the students could not answer the statement correctly at higher rate can be attributed to the common idea that additional vitamin and minerals are useful. In a similar study, the rate of participants giving the same answer was found lower (10.0%) (Zawila et. al., 2003). Athletes will not need vitamin-mineral supplements if they consume adequate energy from a variety of foods to maintain body weight (Manore et. al., 2000; Rodriguez et. al., 2009). A recent study has shown that the majority of college athletes (88.0%) used one or more nutritional supplements (Burns et. al., 2004). A smaller part of the participants (6.7%) answered the statement “skipping meals is justifiable if you need to lose weight quickly” as true. This indicated that skipping a meal was generally considered enough to lose weight. This situation demonstrates the fact that sportsman students should review their knowledge on nutrition. In a study carried out with adolescents and young male hockey players, a significant part of the participants (84.0%) stated that skipping meal was not a good way to lose weight (Juzwiak & Ancona-Lopez, 2004). The micronutrients vitamins and minerals also have an important role in the health of athletes. They are essential players in energy production, hemoglobin synthesis, bone health, immune function, and antioxidant activity (Rodriguez et. al., 2009). More than half of participants (75.6%) correctly answered the statement “vitamins are good sources of energy” as false. In the previous studies, the rate of people having the correct knowledge on this matter was quite low (Zawila et. al., 2003; Jacobson & Aldana, 1992; Heredeen &

Fellers, 1999). Especially, the statements related to nutritional contents were answered at lower rates, which demonstrated the insufficiency of the education on nutrition or the short retention periods of education. Students did not have sufficient knowledge on nutrition, which was one of the main reasons affecting the performance of sportsmen; for this reason, the education system should be reviewed in this regard.

Food that is easily digested and absorbed by body should be preferred soon after the training. This includes fruit, bread, cereal, skimmed milk, yoghurt, juice, and sports drinks which are richer than carbohydrate and include low fat. On the other hand, some other foods including coke, chocolate, biscuits, chips, and lait crémeux should not be consumed as they are flatulent and remain in the stomach for a long time (Ersoy, 2004). Only a small proportion of the participant (6.7%) students answered that "the food like chocolate, biscuit and chips are not appropriate for consuming after the training". This indicated that students did not have enough knowledge about the food they consumed after the training.

In this study, the highest score was 21 which could be obtained when all the questions were correctly answered. However, the mean score of the participants was 13.67 ± 1.89, which was considered low and indicated the inadequacy of nutrition knowledge of students. In various studies, sportsmen's nutrition knowledge was also reported inadequate (Rosenbloom et. al., 2002; Burns et. al., 2004; Perron & Endres, 1985; Dunn et. al., 2007). On the other hand, there were some other studies determining nutrition knowledge adequate ((Juzwiak & Ancona-Lopez, 2004, Corley et. al., 1990). Considering the importance of nutrition for sportsmen, it is necessary to increase the knowledge of sportsmen and their trainers on nutrition.

In this study, it was found that the mean knowledge scores of the female students were higher compared to male students. However, the difference was not statistically significant ($p > 0.05$). In other studies, carried out by Rosenbloom et al. and Corley et al. it was determined that the nutrition knowledge did not vary according to gender (Rosenbloom et al., 2002; Corley et. al., 1990). In contrast, there were some other studies reporting that the knowledge levels of females were higher than males (Douglas & Douglas, 1984; Smith-Rockwell et. al., 2001). This discrepancy might be caused by the difference between the study groups. The mean nutrition knowledge scores of the fourth-year students were higher than those of the first-year students.

The difference between the third- and fourth-year students was also not found statistically significant ($p > 0.05$). Considering the fact that

the fourth-year students took nutrition class, the importance of this information could become more evident. This was caused by the lack of knowledge. Increasing the education on nutrition will also increase the knowledge scores on this matter. Nutrition education should be more emphasized and the permanency of the education should be provided.

Conclusions

The importance of nutrition education is increasingly recognized at present, and there is a consensus that people's food choices, dietary practices, and physical activity behaviors influence health. The overall level of knowledge at the satisfactory level among our survey respondents. More than half of them had good level of knowledge towards nutrition. We did not find any significant predictor for knowledge. Very few of them reported about internet, textbooks as their source of information regarding nutrition. This emphasizes the need for development and collaboration of sports nutrition curriculum in their regular education. Enough and balanced nutrition should be a perfect life style and an eating habit for a sportsman. The number of courses related to nutrition should be increased in universities and the main objective in these courses should be to make the theoretical knowledge applicable in daily life. Experienced sportsmen and trainers should pursue ways to educate young people on how to select nutritious foods that will promote a lifetime of good health. Further studies evaluating the nutrition knowledge of amateur professional sportsmen, coaches, and even the people living with them might be useful.

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MENTAL FITNESS STATUS OF CRICKET AND FOOTBALL SPORTSPERSONS OF BKSP

*Md. Shafiqul Islam

ABSTRACT

The purpose of the present study was to find out Mental Fitness Status of Cricket and Football Sportspersons of BKSP. The subjects of the study were 38 sportspersons which were 20 Cricket and 18 Football Sportspersons in BKSP. The age ranges of the subjects were 14 to 20 years. The subjects were all male sportspersons and regular students of BKSP. Anxiety Control, Concentration, Confidence, Mental Preparation and Motivation were selected as Psychological Variable for measures the Mental Fitness Status. Psychological Skill Inventory for Sport (PST) prepared by Mahoney. Gabiel, Perking (1987) was used to assess the psychological skills of sportspersons to different sports. Mean, Standard Deviation and Independent t- test were used to analysis the data, and level of significant was set at 0.05. Significant differences were not found between Cricket and Football Sportspersons of BKSP in Bangladesh among the Mental Fitness.

Key word: Psychological Variable, Anxiety Control, Concentration, Confidence, Mental Preparation and Motivation.

INTRODUCTION

Peak performances are those magic moments when the sportspersons put it all together both physically and mentally. Its focus is on the mental side of peak performance and how the mind interacts with the body in ultimately producing performance. Most sportspersons and coaches will acknowledge that at least 40% to 90% of success in sports is due to mental factors. The higher the skill level, the more important the mental aspects become. In fact, on the elite competitive level, it is not uncommon to hear that the winner invariably comes down to who is the strongest sportspersons mentally on a given day!

Our athletic performance division focuses on developing both the mental and physical capabilities of a person as well as the connection between them. Our team enhances both the physical and mental performance by helping to analyze performance gaps and develop solutions allowing individuals to perform at your peak potential. Our goal is to maximize athletic performance and ultimately create a competitive advantage for individuals and teams.

Our mental conditioning element provides techniques and strategies including positive thinking, concentration, and visualization to develop

the mental aspect. Our physical segment encompasses both nutritional education and fitness. .

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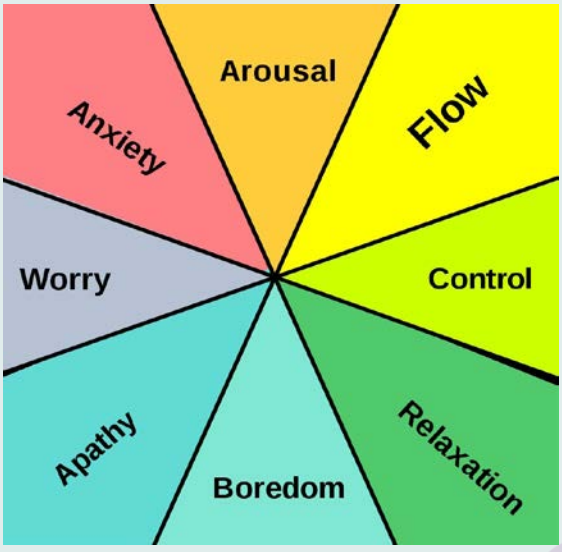
Anxiety is a common emotion and is thought to be normal as long as it does not become completely inhibiting. Anxiety has been viewed as feelings of nervousness and tension associated with activation or arousal of the organism. Therefore, anxiety may be defined as negative emotional feelings characterized by apprehensions, worries caused due to relatively non-threatening events or situations. Anxiety relating to sport psychology is defined both in terms of stable and transient characteristics i.e. trait anxiety and state anxiety. Attention and concentration are separate psychological skills combined below due to their overlapping conception.



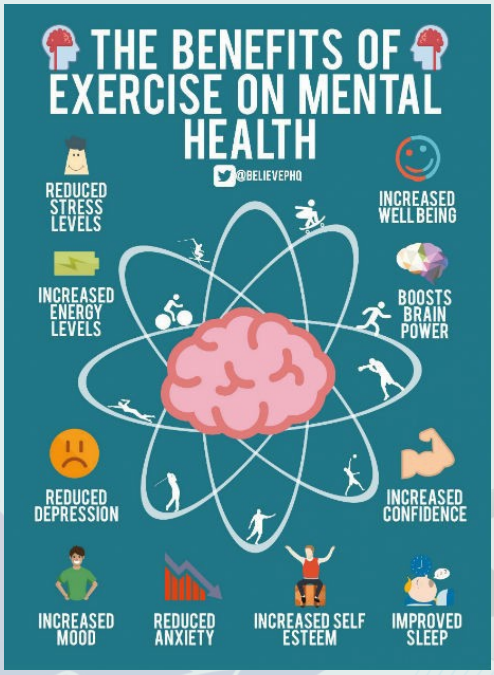
Psychological skills currently most focused on in sport include arousal, mental imagery, attention, concentration, self-confidence, goal setting and motivation (Wann & Church, 1998; Weinberg & Gould, 2007). Attention involves focusing mental ability on a current task. Concentration entails sustaining attention over a period of time, while being aware of environmental and situational factors (Harris & Harris, 1984; Weinberg & Gould, 2007). It is particularly important during lengthy sporting competitions.

Mahoney and Avener (1977) compared 1976 U.S Olympic qualifiers and non-qualifiers in men's gymnastics and found that the finalists coped more easily with competitive mistakes, were better able to control and utilize anxiety, had higher self-confidence and more positive self-talk, had more gymnastics related dreams, and had more frequent imagery of an internal versus external nature. Canadian National Wrestling Team qualifiers compared with no-qualifiers were higher in self-confidence, close to reaching their maximum athletic potential, more able to block anxiety one hour prior to and during competition, and experienced

fewer negative self-thoughts one hour prior to competition (Highlen & Bennett, 1979)

Rushall (1989) has stated that “Psychology is the key to sports excellence.’ For example, when the physical, technical and mental readiness of Olympic sports was assessed, only mental readiness significantly predicted Olympic success (Orlick & Partington 1988). Additionally, in Golf My Way, Jack Nicklaus states that mental preparation is the single most critical element in peak performance. This is not a particularly surprising statement considering that Nicklaus believes golf is 90% mental.

The study of the 1988 U.S Olympic wrestling teams (Gould, Ecklund, & Jackson, 1990) also revealed many similar findings to Orlick and Partington’s study of Canadian Olympic athletes concerning use of psychological skills. The wrestlers utilized four general dimensions of mental skill. Imagery skills were the most frequently reported mental skill. Imagery was used to create positive images; mentally rehearse tactics, strategies, and techniques: relax; and reinforce goals and objectives. Thought control techniques such as thought stopping, self-talk, positive thinking, and prayer were common. Emotional control skills were used to regulate activation level and to create feelings associated with optimal performance.



Negative thought patterns can heighten arousal levels, create cognitive anxiety and self-doubt. These negative emotions and cognitions can increase or decrease an athlete’s focus and have a direct negative effect on sporting performance (Potgieter, 1997), both in preparation for and during an event. An example is that some athletes do not overcome pre-competitive anxiety and transfer this unresolved negative emotional experience from youth to adult sporting careers (Hanton, Wadye & Connaughton, 2005). While these athletes continue performing, optimal outcomes may never be achieved. When anxious

energy flow is not harmonious and an athlete's movement can change from being effortless to being jerky, uncoordinated and erratic.

The following mental skills were commonly used by elite sportspersons while achieving peak performance:

- Imagery
- Goal setting
- Thought control strategies
- Arousal management techniques
- Well-developed competition plans
- Well-developed coping strategies (used when distracted or faced with unforeseen events)
- Pre-competition mental readying plans

MARERIALS AND METHODS

The subjects of the present study were 38 sportspersons which were 20 Cricket and 18 Football Sportspersons in BKSP. The age ranges of the subjects were 15 to 20 years. The subjects were all male sportspersons. Anxiety Control, Concentration, Confidence, Mental Preparation and Motivation were selected as Psychological Variable. Psychological Skill Inventory for Sport (PST) prepared by Mahoney and Gabiel, Perking (1987) was used to assess the psychological skills of sportspersons to different sports.

RESULTS

Means, Standard Deviation and t-ratios were computed in order to analysis the separately for Cricket and Football Sportspersons in BKSP. The level of significance chosen was .05 levels. The statistical analysis of data has been separately presented for Psychological Variable according to table.

Table-01

Means, Standard Deviation and t-ratios of Psychological Variable like Anxiety Control for the Cricket and Football Sportspersons in BKSP

Group	Size	Mean	Mean Difference	SD	't' ratio
Cricket	20	21.60		2.25	
			-1.40		- 0.113
Football	18	23		4.29	

* Not significant at .05 level — t. 05(36) =1.68

The analysis of data in Table 01 reveals that there is no significant difference in Psychological Variable like Anxiety Control between Cricket and Football Sportspersons in BKSP. The t-ratio-0.113 is less than the table value of 1.68 required for the difference to be significant at .05 levels.

Table-02

Means, Standard Deviation and t-ratios of Psychological Variable like Concentration for the Cricket and Football Sportspersons in BKSP

Group	Size	Mean	Mean Difference	SD	't' ratio
Cricket	20	16.55		2.08	
			0.55		0.297
Football	18	16		3.85	

* Not significant at .05 level — t. 05(36) =1.68

Table 02 reveals that there is no significant difference in Psychological Variable like Concentration between Cricket and Football Sportspersons

in BKSP. The t-ratio-0.297 is less than the table value of 1.68required for the difference to be significant at .05 levels.

Table-03

Means, Standard Deviation and t-ratios of Psychological Variable like Confidence for the Cricket and Football Sportspersons in BKSP

Group	Size	Mean	Mean Difference	SD	't' ratio
Cricket	20	26.85		2.45	
			-0.81		0.241
Football	18	27.66		4.31	

* Not significant at .05 level t. 05(36) =1.68

The analysis of data in Table 03 reveals that there is no significant difference in Psychological Variable like Confidence between Cricket and Football Sportspersons in BKSP. The t-ratio-0.241 is less than the table value of 1.68 required for the difference to be significant at .05 levels.

Table-04

Means, Standard Deviation and t-ratios of Psychological Variable Mental preparation for the Cricket and Football Sportspersons in BKSP

Group	Size	Mean	Mean Difference	SD	't' ratio
Cricket	20	12.30		2.25	
			0.58		0.254
Football	18	11.72		8.19	

* Not significant at .05 level t. 05(36) =1.68

Table 04 reveals that there is no significant difference in Psychological Variable like Mental preparation between Cricket and Football Sportspersons in BKSP. The t-ratio-0.254 is less than the table value of 1.68required for the difference to be significant at .05 levels.

Table-05

Means, Standard Deviation and t-ratios of Psychological Variable like Motivation for the Cricket and Football Sportspersons in BKSP

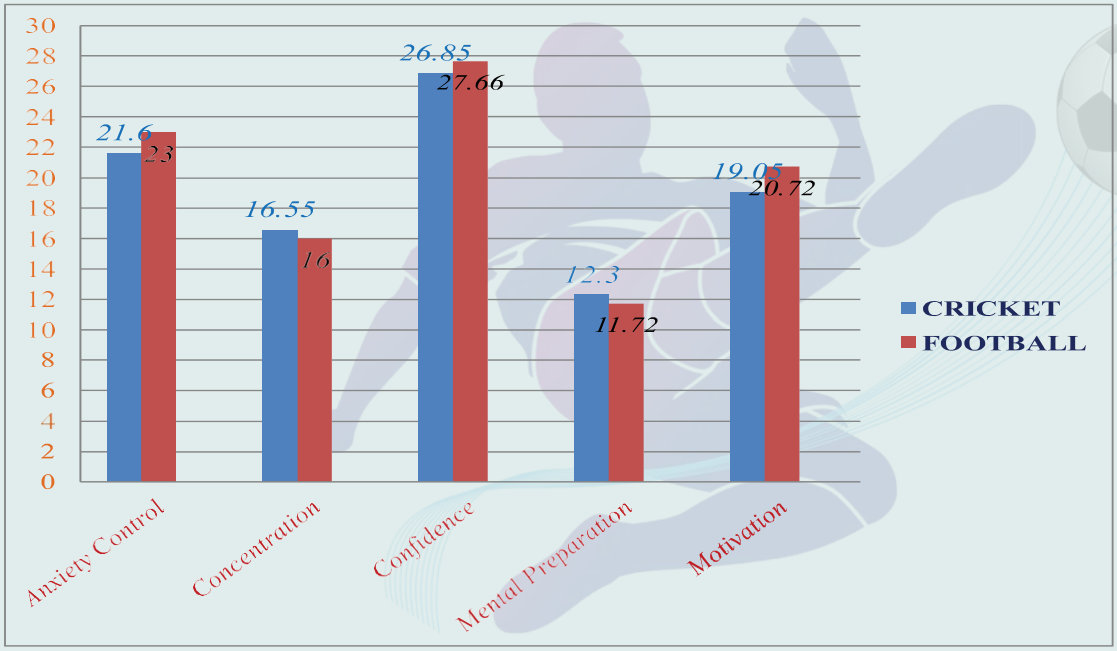
Group	Size	Mean	Mean Difference	SD	't' ratio
Cricket	20	19.05		3.94	
			1.67		- 0.080
Football	18	20.72		3.26	

* Not significant at .05 level — t. 05(36) =1.68

The analysis of data in Table 06 reveals that there is no significant difference in Psychological Variable like Motivation between Cricket and Football Sportspersons in BKSP. The t-ratio-0.080 is less than the table value of 1.68required for the difference to be significant at .05 levels.

Table-07

Means of Psychological Variable like Anxiety Control, Concentration, Confidence, Mental Preparation and Motivation for the Cricket and Football Sportspersons in BKSP



DISCUSSION

The purposes of the present study were to find out of Mental status between Cricket and Football Sportspersons of BKSP in Bangladesh. The age ranges of the subjects were 14 to 20 years. The subjects were all male sportspersons and regular students of BKSP. Anxiety Control, Concentration, Confidence, Mental Preparation and Motivation were selected as Psychological Variable. Psychological Skill Inventory for Sport (PST) prepared by Mahoney. Gabiel, Perking (1987) was used to assess the psychological skills of sportspersons to different sports.

Generally the successful sportspersons are more preoccupied with their sport in a more positive way. This is reflected by more thoughts, imagery, daydreams, and dreams relative to their sport, with the content tending to be more positive. In a number of the studies, successful sportspersons were found to have less anxiety immediately before and during competition. Successful sportspersons are able to control their anxiety to a facilitative level and often are highly activated, which they interpret in a positive manner. Most of the better sportspersons also have a higher ability to rebound from mistakes. One might conjecture that this could be a consequence of higher self-confidence, more optimal control of anxiety and better concentration skills. The result of the present study may be attributed to the reasons expressed above.

CONCLUSIONS

The PST program appeared to be a valuable intervention at all levels for promotion of sport, health and psychological skills. It added to the undeveloped research on sport psychology in Bangladesh and the growth needs of the field as a whole. The PST program appeared to be specifically associated with the improvement of psychological skills, health, sport and performance at youth level. From a performance perspective, with regard to local and international competition, youth athletes in Bangladesh need to receive sport psychology, PST programs and life skill training.

This study provides a foundation for future research and intervention in Bangladesh where programs need to be implemented to enhance health and sporting performance of adult athletes and for the growth and development of young sportspeople. More PST interventions should be promoted with parents, principals and sport coaches and implemented in schools to promote life, health, sport and psychological skill training.

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