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**COMPARATIVE STUDY OF SELECTED
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Comparative Study of Selected Psychological Variables between Women Handball and Basketball Players

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Abstract – The purpose of this study was to know the difference in psychological variables i.e. anxiety, motivation, adjustment and selected kin anthropometric variables, Body composition measurements between State and National level female Basketball and handball players.

The female Basketball and handball players at national level possess less anxiety, more adjustment and more sports achievement motivation and also possess more kin anthropometrical variables.

It is concluded that national level players have more in psychological variables and kinanthropometric measurements than those of State level players. Because high performance groups possess more competitive maturity and lot of experience in the field of games and sports.

This study provides the guide lines to the coaches, physical education teachers, trainers, players and sports administers to understand the role of motor fitness components in sports. It was observed that there was insignificant difference between basketball and handball players for their Psychological Variable i.e. Death Perception.

INTRODUCTION:-

Indian women were not seriously and actively interested in sports and games until the early decade of twentieth century club life, which was introduced into India by the British. These clubs encouraged women of the leisured and official class to indulge in a little lady like exercises to utilize their long hours of leisure. But the average Indian women, by and large, remained unaffected by this mild form of sporting activity. This, however, goes to the credit of club life that it stimulated ample interest in sports and games on the parts of mother to make them agree to let their daughters participate in games and similar physical exercises when introduced as a part of curriculum in the modern progressive schools. Besides this, the parents noticed that their daughter's health as well as their qualities of leadership and poise increased as a result of their participation in sports and games. As a result of this positive thinking of the society as a whole, sports and games were no longer viewed immodest or that an outdoor life of a woman can have characteristic effect on their complexion or feminine physique.

Psychological counseling for sports teams has shown to be effective in improving performance, prevention

and rehabilitation of sport injuries, and also in maximizing the effectiveness of coaching skills.

The main variables involved in the psychological training of athletes have been traditionally related to motivation, behaviour and personality, concentration, perseverance, and a group of others factors related to stress control and emotional "adjustment," such as anxiety, self-confidence, mood, auto-control, self-regulation and interpersonal social skills. By evaluating athletes' behaviours, the psychologist can determine the most appropriate strategies in order to improve athletic performance (Nicholls, and Polman, 2005).

At present, there is a growing interest in understanding the potential influence of psychological interventions in the prevention of sport injuries. This aspect is of paramount importance, given the high incidence of injuries in elite athletes. Both quantitative and qualitative research has demonstrated that injury can have a profound psychological impact on athletes.

Several studies have shown the effectiveness of psychological support in order to reduce the

incidence of injuries in athletes with "high risk" psychological profiles. Similarly, others have emphasized the importance of psychological intervention in the management of the immediate emotional response at the point of injury (Carr, 2006), in the anxiety response regarding treatment decisions and during the rehabilitation period.

Sport psychologists are also responsible for developing strategies to help coaches in the psychological management of their groups. Psychologists can help coaches determine the most appropriate strategies to improve motivation and cohesion within the group, which may include stimulating the positive influence of the group leader; developing athletes' independence (Mageau and Vallerand, 2003); setting up rules and enhancing decision-making processes and communication among athletes during competition (Hagemann, Strauss, and Büsch, 2007). At present, the optimization of athletic performance is dependent on the use of a multidisciplinary approach. This broad approach opens a new field in which coaches and psychologists work towards the same goals through the creation of an optimum work environment, specific competencies—together, thus solving potential conflicts which may arise within the group.

There is a vast amount of evidence suggesting that psychological interventions in sport are of paramount importance in increasing the success of athletes involved in any sport. In order to enhance the role of the sports psychologist, it is essential to integrate his work into a multidisciplinary team to optimally develop the potential capacities of the athlete (Reid, Stewart, and Thorne, 2004).

Recent advances in the field of sports psychology have shown the importance of the application of psychological techniques in the daily practice of athletic training. Nevertheless, too little is known about the extent to which psychological services are implemented in professional clubs and sports institutions.

It is true that modern handball involves high-intensity short duration exercise, in addition to well-developed aerobic fitness, velocity, and strength. In fact, the ability to repeatedly perform intermittent high-intensity actions throughout the game seems to be important in team-Basketball and handball players.

However, very little work (most of which is in non-ISI indexed publications, and therefore with limited accessibility, e.g., Lam HP, unpublished observation) has been focused on the intermittent endurance capacity of Basketball and handball players.

In fact, proficiency in team Basketball and handball, usually attributed to a combination of technical and tactical skills, is currently analyzed by the completion

of evaluation sheets during the match(es), or by retrospective analysis of videotapes.

However, technical-tactical efficiency is both team and match specific. It is therefore difficult to obtain an objective measure of each performer's efficiency in a game. Notwithstanding its disadvantages, coaches rely heavily on such a judgment of each player's individual contributions in terms of Basketball and handball-specific skill to team performance.

The literature also reports that psychological attributes and mental skills contribute to athletic success. In fact, motivation is one of the components of athletic success that has been most studied in sports psychology and, to access goal orientation, researchers have employed a range of self-report measures.

Furthermore, the study of the influence of environment and living conditions on the success of an athlete seems to be of irrefutable importance. According to Mensink et al. (2009), leisure time activity can be influenced by socioeconomic status (SES), level of urbanization, and occupation. In fact, it seems that low SES may be a disadvantage with regard to their ability to participate in organized sports.

The most important successful factor of a coach is to help athletes to improve their athletic skill in a wide range of tasks from sequential development and mastery of basic skills, to the more specialized physical, technical, tactical and psychological preparation. Numerous athletes are enrolled in recreational or competitive sport programs under the supervision of a coach, though coaches may vary in qualification, personality, and leadership behavior. There is no doubt that coaches have an enormous impact on athletes' physical and psychological welfare. Coaches have been shown to influence young people's sport involvement, enjoyment and withdrawal. Interviews with elite level athletes, such as female gymnasts and figure skaters, or Olympic medalists (Jowett & Cockerill, 2003) reveal the tremendously positive, but sometimes even destructive influence coaches may have on the athletes' sport career and their physical and psychological welfare.

A very important personal quality is to be able to advocate for yourself - your own positions, to achieve your objectives, to overcome difficulties, to be determined, but without harming the rights of others and to be able to control the aggressive impulses. The concept, which expresses these personal characteristics, is called "assertiveness". The first research on assertiveness was carried out by the American psychologist and psychotherapist Andrew Salter in 1949. In the 40s of the twentieth century, working with depressed clients, A. Salter was trying to

discover the causes of uncertainty and to find a way to treat or reduce its neurotic influence.

SIGNIFICANCE OF THE STUDY

The significance of the study will be to:

- Provide reliable information for the project coaches and the sport commission experts on the existing psychological influencing factors affecting the female Basketball and handball trainees.
- Provide possible solution to the psychological factors which affect the performance of female Basketball and handball trainees.
- Create awareness of female Basketball and handball trainees on psychological factors which affect their performance.
- Serve as a spring board for other researchers who have interest to conduct researches on similar area.

METHODOLOGY

Subjects: The statistical population of this study included all the international and national referees in fields of soccer, volleyball, basketball and handball, which according to the related federations were 252 subjects. These referees were judging in duty during the super league competitions. Statistical sample of the study equaled statistical population which consisted of 252 female ones.

Instruments: The Sources of Stress Survey (SOSS) questionnaire was used in this study. 20 questions were also used and their validity was computed and its inner constancy ($r=0.91$) was also reported. After interviews with the referees, nine more questions were added to this questionnaire. The 4-point Likert scale was used (zero for no effects and 3 for most effect), in order to confirm its validity, this questionnaire was distributed among 20 physical education and psychology specialists and after adding their expert points of view, the inner constancy of the questionnaire for 30 referees was $r=0.93$. The inner constancy of factor of fear of judgment mistake was 1-0.83, factor of interpersonal conflict was $r=0.59$, factor of performance assessment was $r=0.72$ and factor of technical and personal performance was 1-0.72 and time pressure was $r=0.73$.

Procedure: The method of collection and analysis of data was as follows. After coordination with referee committee federation, the investigators departed to different cities where the competitions were holding so that they could personally distribute the questionnaires

between the national and international referees. The time to answer the questions for the subjects was 30 minutes.

Statistical Analysis: Descriptive statistics methods (frequency, mean and standard deviation) to report the importance of variables and exploratory factor analysis with a varimax rotation and all the variables of each factor with their factor loadings were determined. Before factor analysis, Kaiser-Meyer-Olkin test was used to reassure the sampling adequacy and the Bartlett's test of Sphericity to assess correlation among variables. In order to test the hypothesis of the study, the Kolmogorov-Smirnov.

Mann-Whitney U and Kruskal-Wallis test were used ($P=0.05$).

RESULTS

After studying the viewpoints of the officials and the referees, 29 questions were considered for the main questionnaire and the minimum factor load was considered 40% for each question, in Table 1. In exploratory factor analysis, this questionnaire was classified into six factors (personal problems, interpersonal conflicts, personal and technical performance, performance assessment, fear of judgment mistakes and time pressure). Two new stressors in this research were fear of judgment mistakes and personal problems. Any factor represents the situation the referee could be confronted before, during and after the game.

Variables	Fear of judgment mistake	Interpersonal conflicts	Personal problems	Personal & technical performance	Performance assessment	Time pressure
Presence of careful officials during the game	0.750					
Sensitivity of judgment of popular teams	0.739					
Judging important and sensitive competitions	0.647					
Making sensitive decisions during the game	0.617					
Effects of radio and TV broadcasting game Changing the rules and using them during the match on time	0.617					
	0.519					
Severe protest of the players before the match		0.830				
Severe protest of the coaches before the match		0.827				
Confrontation with rude players and aggressiveness during the match		0.640				
Aggressive behaviors of the audience		0.572				
Lack of the safety before the match		0.533				
Verbal breakout among the players		0.523				
Excessive presence of the audience		0.510				
Lack of cooperation between the coaches and players during the judgment		0.491				
Threatening referees		0.453				
Family expectations of spending more time with them			0.766			
Family problems and disputes			0.707			
Interference of time of judgment with different job opportunities			0.699			
Lack of cooperation in game officials				0.728		
insufficient concentration and losing control of the game				0.727		
insufficient experience in judgment				0.563		
Physical and psychological problems				0.487		
Insufficient physical fitness				0.401		
Inadequate media criticism of the referees' performance					0.736	
Inadequate evaluation of the control and assessment of officials					0.649	
Disputes with the officials of the referee committee					0.564	
Performing series of competitions in inadequate time						0.782
Performing competitions in inadequate time of the day						0.708
improper weather condition during the match						0.431

Table 1: Results of the exploratory factor analysis and load factor of the variables,

Factor	Index		Friedman test		
	Mean	Standard deviation	Chi ²	df	Sig
Personal and technical performance	1.98	0.63	421.556	5	0.000 *
Performance assessment	1.63	0.81			
Personal problem	1.37	0.79			
Fear of judgment mistakes	1.23	0.69			
Interpersonal conflict	1.01	0.66			
Time pressure	0.99	0.67			

*it is significant in $P \leq 0.05$

Table 2: Comparison of stressful factors in referees.

In Table 2. there were significant differences in the hierarchies of stressful factors hi the referees. Therefore, it could be stated that the hierarchies of the stressful factors of referees in four fields of basketball and handball were as follows: personal and technical performance, performance assessment, fear of judgment mistakes, personal problems, interpersonal conflicts and tune pressure. However, considering the scoring of the questionnaire, the level of stress among the referees could be stated as lower than medium.

DISCUSSION

The results of exploratory factor analysis indicated that the stressful factors of the referees could be classified into six groups. Considering the variety of different sports, two new stressful factors (fear of judging mistakes and personal problems) were also added hi this study. Many studies considered stressful factors hi sports organizations and facilities. However, very few studies were performed regarding stressful factors hi referees. Therefore, this matter affected the study and comparison of the results.

The conclusion of the prevalence of stressful factors among the referees of different sports agreed with the findings of the following investigators: Tsorbatzoudis (2007), Doric and Paskevich (2007). Nazari (2008), However, considering the order or priority of stressful factors, many differences were observed hi these studies. Probably the differences hi the priorities of these factors is related to cultural differences (audiences and media) and management of the competitions. However, priorities of stressful factors of technical and individual performance and then individual and personal performance indicates that after the environmental and management factors, the individual and personal factors of the referees should also be considered. The prevalence of time pressure stressor in soccer referees showed that time is an important and sensitive factor in this sport, since such a condition exists in most sports, it is not very much clear why the soccer referees stated higher level of stress in this factor compared to other referees.

The results of this study also showed that the most important stressful factor among referees in all four fields of basketball and handball is the factor of individual and technical performance. Almost in most

studies that were performed in different sport fields, this factor is reported as the important stressful factor, The technical performance of the referees could easily be disturbed by the stressful factors, which makes the sensitivity of the role of judgment in a good competition evident. Considering these job characteristics, the stressful factors should be recognized so that the technical performance of the referees can be less disturbed. When the referees remember then best performance, they usually indicate matters such as not being afraid of whistling, or players' and coaches' criticisms. The findings of this study is also important because it reveals that the Iranian referees are more concerned with technical performance and judging and the personal, family and other unprofessional stressful factors can not affect them.

CONCLUSION

This study has shown that sports psychologists are not usually present in the multidisciplinary teams playing in the top leagues of team sports. In order to solve this problem, a well-established national sport psychology association to initiate coordinated contacts with public and private sporting institutions is necessary. In addition, the role of psychologists to enhance athletic performance should be emphasized in training programs for coaches. Replication of this study is recommended to ascertain cognate situations in other sports.

This study has shown that the female players in the Basketball and handball project are participating by their own interest and choice. As the analysis of the collected data revealed the female trainees are intrinsically motivated. The study has shown that there are no extrinsic motivation strategies and even the training is undertaken without setting short and long term plans. Individuals who are extrinsically motivated still do it for intrinsic reasons such as improving certain skill sets and becoming a better athlete on the pitch because they are motivated to become better because the better they are the better quality the extrinsic factors become.

Furthermore, the sources of anxiety and stress in this Basketball and handball players are basically related to the coaches and the sport office experts' lack of understanding of the psychological components of a sport activity. According to the findings of this study the female Basketball and handball trainees self-confidence is not as expected. When sportsperson feel confident, they are more readily able to turn sporting potential into superior performance. Conversely, when they feel unsure of themselves, the slightest setback or smallest difficulty can have an unwarranted effect on their performance.

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