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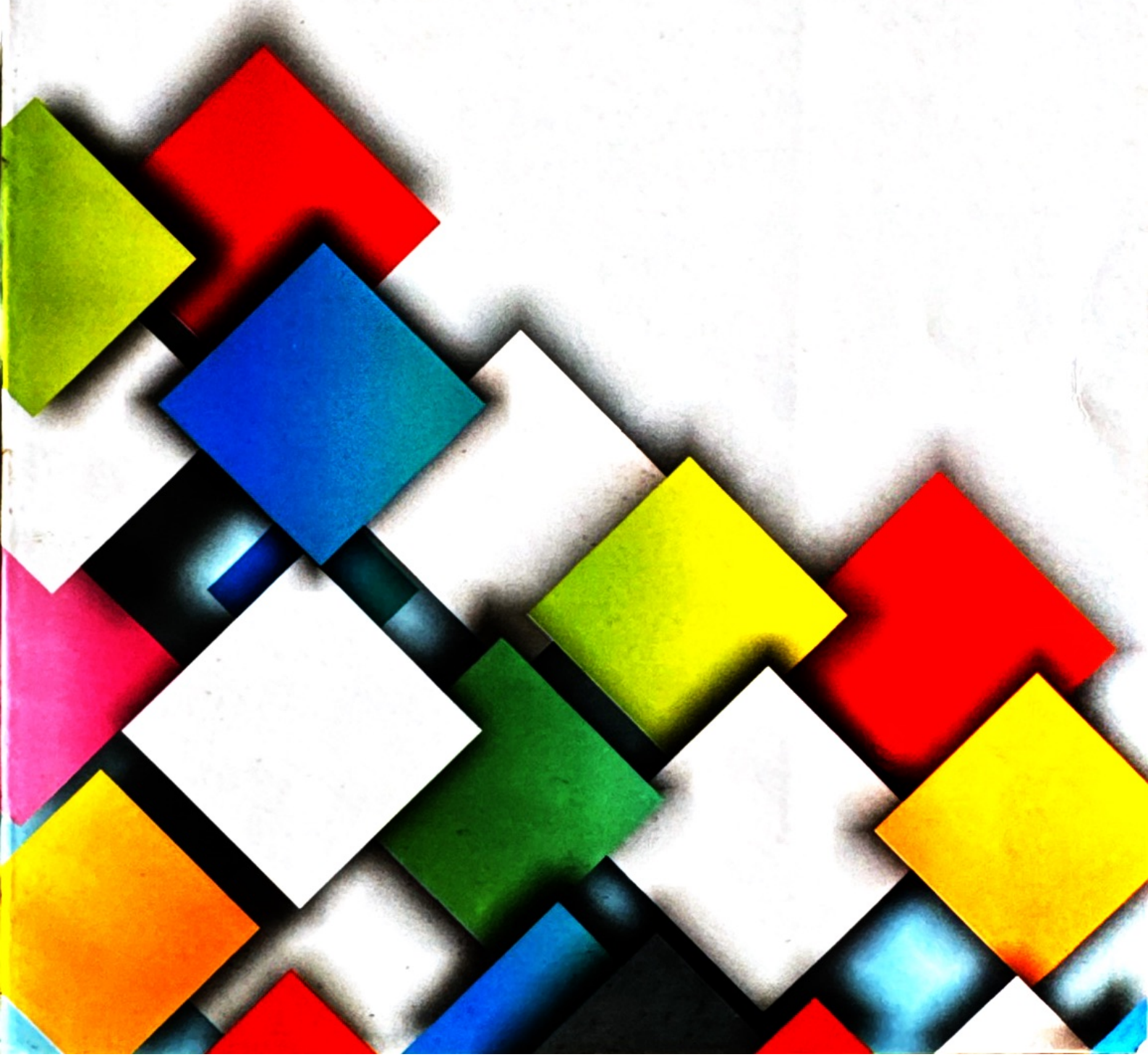

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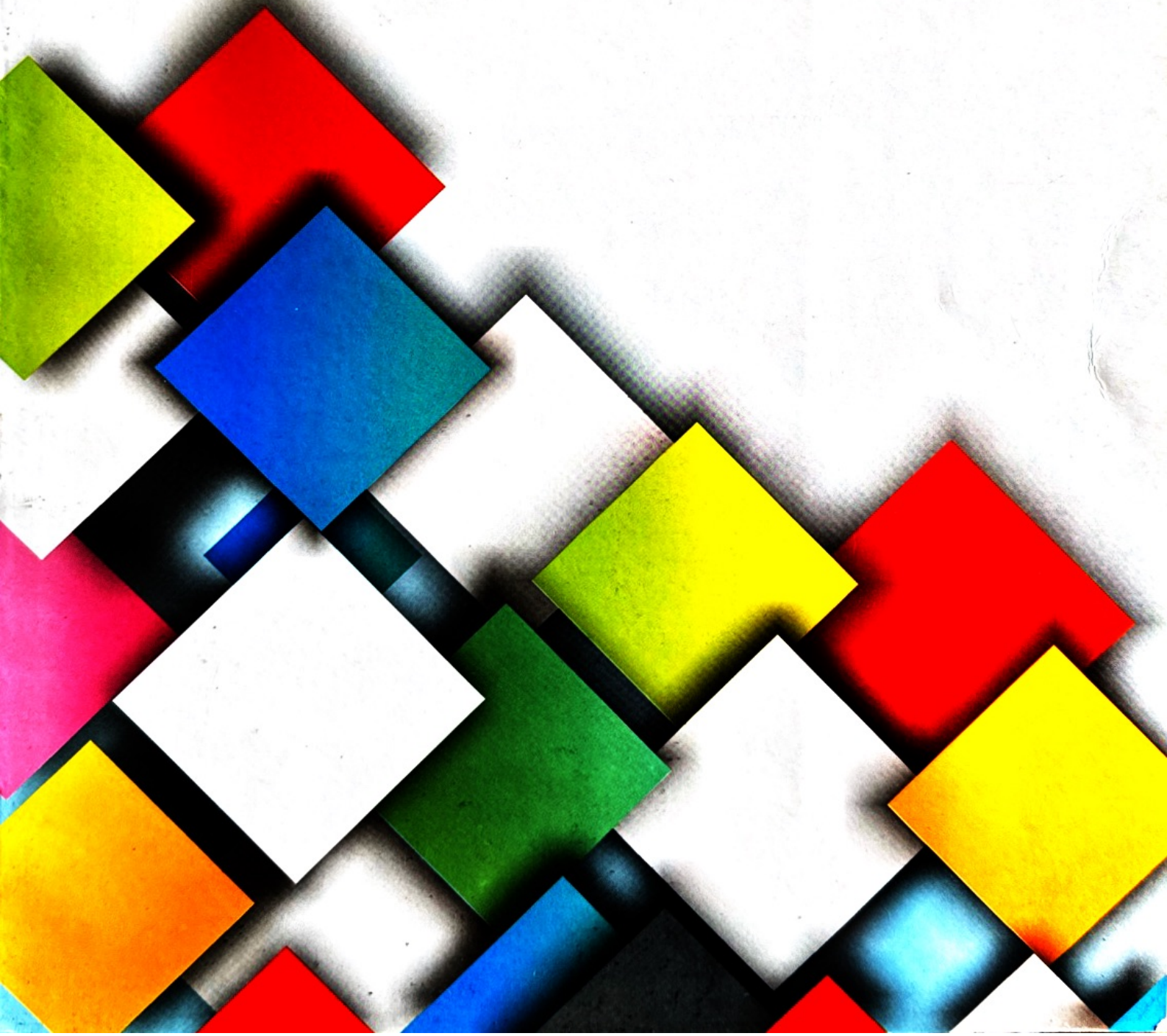

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Gender-based Analysis of Sport Goal-Orientation, Coping Skills and Participation Motivation of South Indian Athletes

Jayashree Acharya* Ashutosh Acharya* Shailaja Mohan**

Abstract

The present investigation aimed at analyzing sport goal-orientation, coping skills and participation motivation of 100 national level athletes (55 male & 45 female) of Kerala, India belonging to various sport. The mean age of male and female subjects was 20.11 ± 2.10 and 19.40 ± 2.81 respectively. Goal-orientation, athletic coping skills and participation motivation was assessed with the help of Task and Ego Orientation (TEOSQ) by Duda & Nicholls (1995); Athletic Coping Skill Inventory by Smith et al. (1995) and Participation Motivation by Gill; Gross, & Huddleston (1983). GLM MANOVA was adopted as a statistical measure, and the mean difference tested for significance at the .05 level. The interception of sport and gender showed significant difference in task goal-orientation F (1, 97) = 4.16, not in ego goal orientation. In athletic coping skill significant differences were seen in peaking under pressure F (1, 97) = 9.32. No gender-based difference was noticed in the psychological skill of coping with adversity, goal setting, freedom from worry, concentration, confidence, achievement motivation and coachability. Finally, in the participation motivation significant gender based differences was seen in fitness orientation F(1, 97) = 31.91; energy release F(1, 97) = 11.85; situational factors F (1, 97) = 18.82; friendship F(1, 97) = 26.45 and fun F(1, 97) = 19.99. No difference was found in achievement status, team orientation and skill development between both the groups. All variables where significant difference occurred, were male athletes' domain with higher scale in comparison to female athletes.

Key words : *Goal orientation, Coping skills, Participation motivation.*

Introduction

Among numerous factors believed to contribute to an outstanding performance, psychological ones are the most influencing. This is a hard reality of the day. and accepted by all and sundry today. Goal orientation helps an athlete to raise the level of training and competitive performance where as coping skills help protect people from being psychologically harmed by challenging experiences in their lives and finally participation motivation addresses the general questions of how and why athletes become actively involved in sport. As in other disciplines, the importance of individual differences and gender differences in teaching and research are well-recognized in psychology. In many subcultures, stereotypes exist in sport as to the kind of participates and activities appropriate for members of identifiable groups. There is evidence that female athletes are underrepresented in media coverage such as TV, newspapers, and magazines (Higgs, Weiller & Martin, 2003; Theberge, 1991). Even when showcased, women are often portrayed in traditional ways and their accomplishments are trivialized (Jones, Murrell & Jackson, 1999). The present investigation was undertaken keeping these variables in mind both in respect of male and female athletes of sport-crazy and athlete-manufacturing Kerala. The objective of the study was to know if there existed any gender-based difference in sport goal orientation, coping skills and participation motivation between male and female athletes of Kerala where female ratio exceeds number of males.

It was hypothesized that there would be a significant difference between male and female national level varied sports athletes in their (a) sport goal orientation (task & ego orientation), (b) coping skills (coping with adversity, peaking under pressure, goal setting/ mental preparation, freedom from worry, concentration, confidence& achievement motivation, coachability) and (c) participation motivation (achievement status, fitness orientation, team orientation ,skill development; energy release; situational factors; friendship and fun).

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Methodology

The sample for the study consisted of 100 national level athletes (55 male having mean age 20.11 + 2.10, and 45 female with mean age 19.40 + 2.81) belonging to Kerala (India), representing various sport. The subjects voluntarily come forward to respond to the questionnaires. The instruments used for measuring goal orientation, athletic coping skills and participation motivation were Task and Ego Orientation (TEOSQ) by Duda & Nicholls (1995); Athletic Coping Skill Inventory by Smith et al. (1995) (having seven subscales of coping with adversity, peaking under pressure, goal setting/ mental preparation, freedom from worry, concentration, confidence& achievement motivation and coachability); and Participation Motivation by Gill; Gross, and Huddleston (1983) - this questionnaire has eight subscales achievement status, team oriented, fitness oriented, energy release, situational factors, skill development, friendship and fun. The purpose of this research and academic exercise was well explained to the subjects.

Results and Discussion

GLM MANOVA was adopted as a statistical measure. The mean difference was tested for significance at the .05 level. The interception of sport and gender showed significant difference in task goal orientation $F(1, 97) = 4.16$, not in ego goal orientation. In athletic coping skill significant differences was seen in peaking under pressure $F(1, 97) = 9.32$. No gender-based difference was seen in the psychological skill of coping with adversity, goal setting, freedom from worry, concentration, confidence, achievement motivation and coachability. Finally, in the participation motivation significant gender-based differences were seen in fitness orientation $F(1, 97) = 31.91$; energy release $F(1, 97) = 11.85$; situational factors $F(1, 97) = 18.82$; friendship $F(1, 97) = 26.45$ and fun $F(1, 97) = 19.99$. No difference was seen in achievement status, team orientation and skill development between both the groups. All the variables where significant difference was found, were connected the male athletes who were on higher scale as compared to female athletes. The descriptive statistics such as means and standard deviations for the different subscales: goal orientation, coping skill and participation motivation are shown in Table 1, 2 and 3 respectively.

Table-1

Sports and Goal Orientation Subscales by Gender

	Male Athletes		Female Athletes		Total Sample	
Sub Scales	Mean	SD	Mean	SD	Mean	SD
Ego-Orientation	2.92	0. 56	2. 81	0. 53	2. 87	0. 54
Task Orientation*	4.19	0. 56	3. 97	0. 52	4. 09	0. 55

*The mean difference is significant at the .05 level $p < 0.05$

Table- 2

Sports and Coping Skills Subscales by Gender

	Male Athletes (N= 55)		Female Athletes (N=45)		Total Sample (N=100)	
Sub Scales	Mean	SD	Mean	SD	Mean	SD
Coping with Adversity	6. 87	2. 51	7. 31	2. 70	7. 07	2. 59
Peaking Under Pressure*	7. 27	2. 63	5. 60	3. 06	6. 52	2. 94
Goal Setting/Mental Prep	8. 45	2. 45	7. 76	2. 28	8. 14	2. 39
Concentration	6. 71	2. 46	7. 33	2. 55	6. 99	2. 51
Freedom from Worry	7. 13	3. 18	7. 02	2. 30	7. 08	2. 81
Confidence & Ach Mot	8. 67	2. 03	8. 29	2. 02	8. 50	2. 02
Coachability	6. 78	1. 75	6. 20	2. 02	6. 52	1. 88

*The mean difference is significant at the .05 level $p < 0.05$

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Table-3

Sports and Participation Motivation Subscales by Gender

	Male Athletes		Female Athletes		Total Sample	
Sub Scales	Mean	SD	Mean	SD	Mean	SD
Achievement Status	15. 93	2. 37	15. 80	1. 20	15. 87	2. 20
Team Orientation	8. 40	1. 15	7. 98	1. 27	8. 21	1. 22
Fitness Orientation*	7. 84	1. 24	6. 33	1. 40	7. 16	1. 51
Energy Release*	7. 29	1. 40	6. 24	1. 69	6. 82	1. 62
Situational Factor*	7. 64	1. 70	6. 42	1. 12	7. 09	1. 58
Skill Development	8. 33	1. 25	8. 44	0. 87	8. 38	1. 09
Friendship*	10. 20	1. 86	8. 44	1. 55	9. 41	1. 93
Fun*	10. 60	2. 73	8. 29	2. 33	9. 56	2. 80

*The mean difference is significant at the .05 level $p < 0.05$

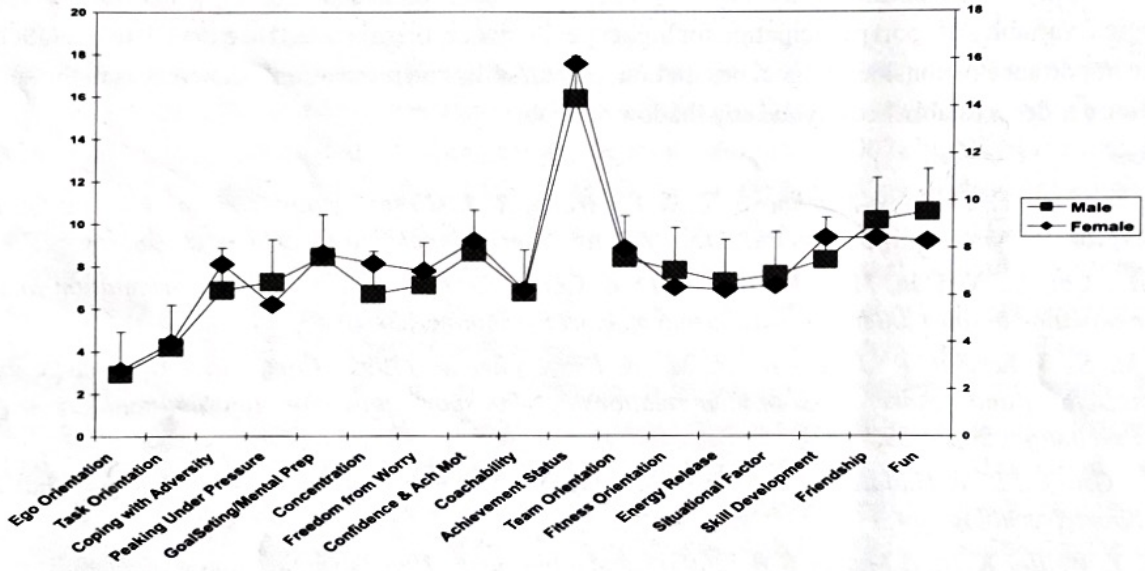

Figure 1 : Mean Scores of Goal Orientation, Coping Skills and Perceived Motivation of Male and Female Athletes

The tables are self-explanatory. Figure one gives the graphical representation of the score of both male and female athletes. Also the mean differences have been shown in the same.

As the mean difference in psycho-variables such as task goal orientation; peaking under pressure in coping skill and participation motivation of fitness orientation; energy release; situational factors; friendship and fun is significant, the hypothesis is accepted, whereas in all other cases the hypothesis is rejected for the mean difference is not significant.

Male athletes were more tasks- (mastery) oriented in comparison to the female athletes. Peaking under pressure was high in their case. Participation motivation of fitness orientation (stay in shape, get exercise, and be physically fit); energy release (get rid of energy, release tension, something to do, travel, get out of the house); situational factors (parents/close friends, coaches, and equipment/facilities); friendship (being with friends and make new friends, and high negative weights for the competition and challenge items, suggesting an affiliation orientation) and fun was higher in male athletes in comparison to female athletes which even the common sense approves in Indian scenario. These results are in line with past studies in the sport context (e.g., Chantal *et al.*, 1996; Fortier *et al.*, 1995) and confirm that gender differences need consideration in the sporting context.

No difference was seen in 'ego' goal orientation that defines success as winning or outperforming others, which seems the same for both genders. In coping skill domain, coping with adversity, goal setting/ mental preparation, freedom from worry, concentration, confidence& achievement motivation, and coachability no difference was found may be owing to the reason that "Coping as a process of constantly changing cognitive and behavioral efforts to manage specific external and or internal demands or conflicts appraised as taxing or exceeding one's resources" (Lazarus & Folkman, 1984). In participation motivation of achievement status (to win, feel important, be popular, gain status, do something I'm good at, and rewards) team orientation (team work, team spirit and being on a team) and skill development (improve skills, learn new skills, and go on to a higher level) no difference was found as these reasons addresses the general questions of how and why athletes become actively involved in sport. This indicates no gender based difference in these psychological attribute which contributes for higher performance.

Though sport is considered more of a male domain, the findings of the present study clearly suggest female athletes too have understandable goal orientation, possess coping skill to meet the challenges and have strong participation motivation for achievement status, be part o the team and have greater desire for skill development.

The study was confined only to one State. For better understanding of gender-based approach in psychological variables of sport participation for higher performance, there is a need to extend it to other States as well so that the importance of considering goal orientation, coping skills and motivational differences in the sport domain as a function gender is established beyond any shadow of doubt.

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Working with a sport is a good idea but sports psychologists are life partners....having one is probably a good idea but it is next to impossible to find a good one

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Effects of Attention and Focus Intervention on Sports Performance among Rifle and Pistol Shooters

Amanendra Mann* Shruti Shourie** Chandan Preet***

Abstract

Recognizing the critically of psychological skills in achieving excellence in sports, the present study was conceived of to study the effect of attention and focus intervention on sports performance among rifle and pistol shooters. For this purpose, ten pistol and rifle shooters were subjected to a four hour systematic intervention training involving various psychological skills building techniques. The subjects were assessed on their perceived level of attention and focus during pre-intervention phase and post-intervention phase. The paired t-ratios were computed to determine significant difference in the pre-test and post-test perceived scores on attention and focus. Results discussed in light of earlier findings.

Key words : *Attention Intervention, Focus Intervention, Applied Sports Psychology.*

Introduction

Focus - the ability to pay attention while ignoring distractions - is most important for successful performance in domain of activity especially sports. Support this claim comes from at least three sources. First, reviews of research on athletes' flow states and peak performance experiences in sport (Harmison, 2007) highlight the importance to optimal performance of total absorption in the task at hand. Second, there is growing evidence of a link between athletes' focus of attention and the quality of their performance. Importantly, a review by Wulf (2007) concluded that an external focus of attention (in which performers direct their attention at the effects that their movements have on the environment) is usually more effective than an internal one (in which performers focus on their own body movements) in improving the learning and performance of various motor skills. Finally, a variety of anecdotal testimonies and sporting incidents emphasise the significance of focusing skills in determining athletic performance. Research suggests that lapses in attention can make the difference between success and failure in competitive sport. For example, at 2004-Athens Olympic Games, the American rifle shooter Matthew Emmons missed an opportunity to win a gold medal in 50m three-position target event when he shot at the wrong target. Leading his nearest competitor Jia Zhambo (China) by three points as he took his last shot, Emmons lost his focus momentarily and shot at the target of a competitor in the next lane – thereby squandering his chance of victory.

Sports psychology researchers have developed a variety of practical strategies that purport to improve concentration skills in athletes (Greenless & Moran, 2003). All these cognitive-behavioural strategies in common, purport to help sports performers to achieve a focused state of mind in which there is no difference between what they are thinking about and what they are doing. When this happens for an individual, the performer's mind is "cleared of irrelevant thoughts, the body is cleared of irrelevant tension, and the focus is centred only on what is important at that moment for executing the skill to perform" (Orlick, 1990: 18).

Intervention Techniques

- **Progressive Muscular Relaxation** : Developed by Edmund Jacobson in 1938, this is a systematic technique for achieving a deep state of relaxation. Jacobson discovered that a muscle could be relaxed by first tensing it for a few seconds and then releasing it. Tensing and releasing various muscle groups throughout the body produces a deep state of relaxation. In his work *'Progressive Relaxation'*, Jacobson developed a series of 200 different muscle relaxation exercises and a training programme that took months to complete. More recently the system has been abbreviated to 15-20 basic exercises, which have been found to be just as effective, if practiced regularly as the original more elaborate system.

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- **Guided Affective Imagery (GAI)**: This psychotherapy technique was developed by German psychiatrist Hanscarl Leuner. In it a facilitator uses descriptive language intending to psychologically benefit mental imagery, often involving several or all senses, in the listener's mind. Here, the imagination plays an important role together with discussions with the client.
- **Quieting Reflex**: Charles Stroebel developed a six-second exercise, which he called the Quieting Reflex in 1974 after experimenting with both Transcendental Meditation and biofeedback. It is used to cope with urgent and emergent stress.
- **Silva Method**: The Silva Method is a technique developed by José Silva which claims to increase an individual's sense of personal well-being through relaxation and development of their higher brain functions. Its proponents believe that it can improve a person's self-image and allow them to think in a clearer manner.
- **Shavasana**: The shavasana yogic technique is intended to rejuvenate body, mind, and spirit. The whole body is relaxed onto the floor with an awareness of the chest and abdomen rising and falling with each breath. All parts of the body are scanned for muscular tension of any kind, which is consciously released as it is found.

Methodology

The purpose of this study was to study the effect of attention and focus intervention on sports performance of rifle and pistol shooters. The study sample consisted of 10 rifle and pistol shooters. The age range of these shooters was 15-25 years.

The study was conducted on single group pre-test, post-test experimental design in which pre-test and post-test evaluations were conducted through the assessment of perceived level of focus and attention among the subjects. The experimental group was provided with a four hours of systematic intervention training on progressive muscular relaxation, guided affective imagery, quieting reflex, Silva method, shavasana to study the effects of intervention on perceived level of attention and focus enhancement.

Data - Presentation and Analysis

The data were statistically treated, analysed and interpreted in accordance with the purpose of the study. Paired t-test to evaluate any statistically significant difference in the pre-test and post-test perceived score was calculated to draw results.

Table – I

Descriptive statistics of attention and focus in pre-intervention and post-intervention Phases

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Attention	6.4000	10	1.64655	.52068
	Post-Attention	8.1000	10	1.10050	.34801
Pair 2	Pre-Focus	5.4000	10	1.89737	.60000
	Post-Focus	7.6000	10	2.11870	.66999

Paired Samples Statistics

Table – 2

Paired sample 't' test of attention and focus in pre-test and post-test phases of intervention among rifle and pistol shooters

		Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	Pre-Attention-Post-Attention	-1.70000*	2.16282	.68394	-2.486	9	.035
Pair 2	Pre-Focus-Post-Focus	-2.20000**	3.39280	1.07290	-2.051	9	.071

**The mean difference is significant at 0.10 level

Paired Samples Statistics

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It is evident from table-2 that mean differences of the experimental group in pre-intervention and post-intervention phases are significant at 0.05 level and 0.10 level of significance on attention and focus, respectively, thereby showing that the psychological skills training given during intervention phase improved the sports performance among rifle and pistol shooters.

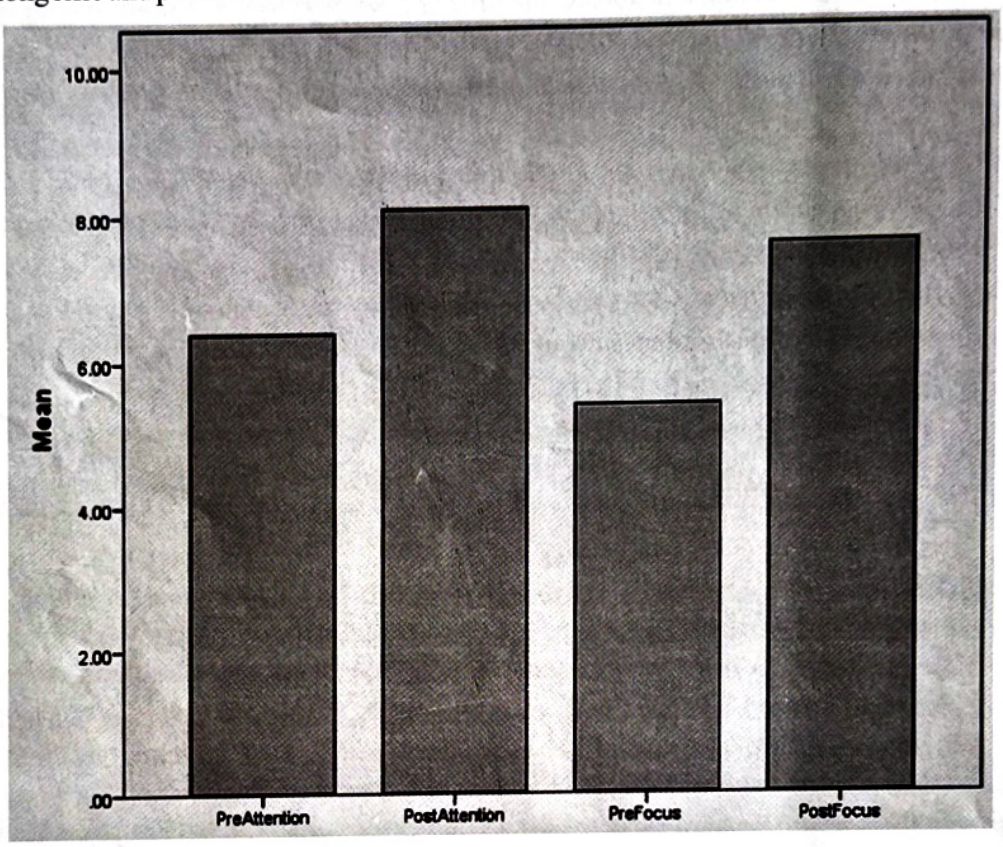

Figure I : The Graphical Representation of Mean Scores on Attention and Focus during Pre-intervention and Post-intervention Phases

The findings pertaining to the sports performance among pistol and rifle shooters reveal that the psychological skills intervention based training is responsible for improving attention and focus during sports performance. The intervention phase included techniques like progressive muscular relaxation, guided affective imagery, quieting reflex, Silva method and shavasana emerged as the key factors in improving the levels of attention and focus during the sports performance among pistol and rifle shooters. The variable under study prior to intervention and post-intervention was measured using the questionnaire measuring perceived level of focus and attention. Thus, the study analysed that intervention based training on psychological skills is capable of improving the levels of focus and attention among rifle and pistol shooters.

Conclusion

Based on findings of the study, it was concluded that intervention based training on psychological skills is useful in improving the level of attention and focus in sports performance.

Recommendations

On the basis of the findings of the study and conclusions drawn, the following recommendations are made:

- Similar training programmes may be used in other games and sports where focus and attention are important factors.
- The training may be planned for longer duration on regular basis for better results.
- The study may be done for shooters of different levels and with large sample.

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Working with a mental skills professional can help successfully integrate a winning mind with a winning body.

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Relationship between Team Cohesion and Achievement with Pre-competition Non-effectiveness Mood in Iranian College Students Tournaments

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Abstract

The main purpose of this research was to evaluate relationship between team cohesion and achievement with pre-competition non-effectiveness mood in Iranian College students' tournaments. 252 collegiate athletes in volleyball (n=68), football (n=86), basketball (n=45) and handball teams (n=53) participated in the study. The Brunel Mood questionnaire with six sub-scales (anger, confusion, depression, fatigue, tension, and vigor) and Carron(1985) group environment Questionnaire was used to collect data. After use of K_S (p>0/05), the descriptive statistics (mean, standard error), t test and Pearson coefficients to investigate relationship between variables used (p⩽ 0/05) were used to analyze data. The results showed a significantly negative relationship between negative mood with team Cohesion and students' achievement *(sig⩽ 0/05). Depression (r=-0/45) and Tension (r= -0/56) were found to have higher effect on achievement in winner teams.*

Key words : *Mood, team Cohesion, Achievement.*

Introduction

The psychology of mood and its relationship with athletic performance has received extensive research attention over sometime. Especially appearance of negative behavioral characteristics in athletes before competition and its effects on optimal performance athletes has been the major concerns with coaches and athletes recently (Totterdell & Leach, (2001). Recent research in sport psychology shows mood to be a transitory construct and an effective predictor of performance when certain conditions are met (Andrew et al. (2004). On the other hand, the studies of Olympic champions athletes personality show that low anxiety, high self-confidence and technical and tactical fitness are the traits of the most successful athletes, who are able to identify and apply strategies to manage their pre-competition moods (Peter, Terry, & Dinsdale, 2006). Vann et al. (2003) indicated that when tennis players are able to modify mental effects of negative behaviors emerged before competition; they would be able to have optimal performance. They reported negative behaviour characteristics such as extreme tension, anger, tension and excitement as the most important influential variables affecting tennis players' performance. In fact results of different research studies imply that besides behavioral traits, team cohesion has a significant effect on success and performance and mental state of athletes (Vann, Rence & David, 2003). The effect of non-effectiveness mood on athletes' performance especially in amateur athletes has contributed on high portion of psychology of sport in recent years (Matthew & Andrew, 2001). Although amateur athletes have good performance in practice sessions, during competitions they are unable to transfer their practice session gains into competitive performance. Most sport psychologists and coaches believe that mood a more effective predictor of performance in sports of a short duration, the ability to control mood would be a useful psychological tool for any athlete criterion in competition (Beedie, Terry, & Lane, 2000). The coaches and psychologists have, therefore, been seeking to identify factors effecting their performance and modification of those factors in order to optimize performance level of athletes Lowther & Lane, 2002). The results of various research studies show significant and direct relationship between team cohesion, self-efficacy and team achievements with positive mood, especially in major competitions (LeUnes, 2000; Harald,, Ian, & Elaine, 2007; and Ashley & Gretchen, 2006). Beedie et al. (2000) and Scott (2002) proposed that mood of athletes before competitions is an important factor that predicts the level of their efficacy and finally team achievement (Scott, Stiles, Raines, & Koth. 2002; and Beedie, Terry, & Lane,2000).

Meyer & Shack (1989) in a similar study reported that the understanding of teammates, self-confidence, behavioral properties, concentration and emotional disorders are of the main factors impacting the performance of

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athletes. Wolfson (2002) tested the effects of exercise and outcome feedback on the mood states of fifty-four undergraduate male and female volunteers. The results indicated that exercisers displayed better mood states than non-exercisers when supplied with positive and neutral feedback; however, a lower mood was found in the exercisers supplied with negative feedback when compared to the non-exercisers (Ashley & Gretchen, 2006)). Thus, the strategies used to mitigate and control the negative mood in exercise session is an applied strategy in sport professional word.

Collectively, the major psychosocial factors that have significant effect on teams achievement include: (1) athlete's characteristics such as self-confidence, anxiety, motivation, depression, physical, psychological and technical fitness, etc; (2). factors that related to teams coaches (leadership characteristics) such as coaching behaviour, personality, precedence, training science, etc; and (3) team variables such as pervious success, collective efficacy, group cohesion, sympathy, etc (Ramezani & Hoseyni 2009). Despite vast and varied research in professional sports, findings in amateur competitive sport such as college tournaments are less and unclear. Also little is known about the mood regulation strategies used by athletes in pre-competition and in exercise session (Lowther & Lane, 2002; and Lane & Chappell, 2001). This research has suggested that mood in amateur athletes is an effective predictor of performance and achievement.

The purpose of the present study was to investigate the relationship between team cohesion and achievement with pre-competition non-effectiveness mood in college students during tournaments. Vast anecdotal evidence suggests that poor performance is associated with failure to get into an appropriate mood (Lowther & Lane, 2002). Lane (2001) in his investigation concerning the relationship between the performance and mood of runners reported that unrest, anger, distress and negative excitement before competition could cause a decrease in their performance (Lane, 200; and Lane, & Chappell, 2001). However, James (2001) and Lane & Chappell (2001) in their study concerning the effects of mood on football and basketball players' performance showed that behaviour traits of team based group athletes such as football, volleyball and basketball compared to individual sports have lower influence on their performance but when they compared their performance to those who have modified and balanced behaviour traits and performance, tension and anxiety would increase which in turn weakened their performance (Lane & Chappell, 2001)

A second variable that seems pertinent to investigating performance in group sports is team cohesion. The cohesiveness of the team is likely to influence the team's achievement and the player's mood. A successful team is likely to be associated with positive mood and engender feelings of cohesion (LeUnes, 2000). Research has found cohesion is not only related to sport performance (Bray & Whaley, 2001; Meyes, 2000), but is also related to mood (Bray & Whaley, 2001). Daivis et al(.1995) believed that effectiveness should be considered for most important success factors and they defined it as athletes' ability to compatibility between players goals and teams and head-coaches objectives (Davis, 1995). Therefore negative mood before racing through a negative impact on the players' perceptions is the main reason to reduced self-confidence and performance in competition.

Terry et al. (2000) reported that being a member of a cohesive group is associated with positive mood among a sample of 415 athletes from three different sports. They found that high attraction to the group in terms of task cohesion, predicted low tension and anger, and high group integration for task cohesion predicted low depression.

Methodology

252 male collegiate athletes [volleyball (n=68), football (n=86), basketball (n=45) and handball teams (n=53)] who participated in the 8-region university matches served as the subjects for this study.

In order to evaluate mood traits of subjects the Brunel Mood Scale (BRUMS) (1999) was administered to the subjects 2 hour before competition. This 24-statement questionnaire evaluates 6 sub-scales viz. anger, confusion, depression, fatigue, tension, excitement and vigor in the form of 5 value scale (1: never to 5: very much). Justifiability of this questionnaire was confirmed by the professors and its perpetuity was measured by alpha coefficients ranging that were confirmed by α= 0.89. Terry (1999) reported its internal perpetuity by Alpha coefficients ranging as α= 0.84[27].

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The Carron Team Environment Scale (1985) with 18 questions about team cohesion, evaluates the two dimensions of group cohesion- task cohesion and social cohesion. This factor based on 9-response form Likert value scales (strongly agree: 9 to strongly disagree: 1) [6]. Its justifiability was confirmed by professors and its perpetuity was also measured by alpha Khrombach that was confirmed by $\alpha = 0.86$.

In order to analyze data, after use of K_S ($p>0/05$) and convinced about data normality, were use the descriptive statistic (mean, standard error), t test and Pearson coefficients to investigate relation sheep between variables ($p \leqslant 0/05$).

The level of students achievement in this research assessed by teams Place team in the Championship table (gaining Gold, silver and bronze) in schedule of competition in end of games.

The questionnaire was administered to the subjects with the concurrence of the team coaches 2 hours before the competition by the investigators. No consultations were allowed.

Results and Discussion

After statistical treatment of the data, the result show that winner teams had better situation in all sub scales and they gained lowest score in anger, confusion, depression, fatigue, tension, excitement scales but they have highest score in vigor. Collectively, there were significant difference in all sub-scales between winner teams and loser teams ($p \leqslant 0/05$). Highest score in Winner teams related to vigor (M= 11.54(1.34) and the lowest was related to confusion (3.75(1.61)). In loser teams highest score Related to anger (8.47(1.16)) and lowest mean score in depression had viewed (7.42(1.51)) (Table-1).

Table - 1

Mean Scores of Mod Sub-scales in Students (±SD)

variable	Winner teams *(pre-final- final teams)*	Losers teams	M. Differ	t	Sig
Anger	4.15(1.48)	8.47(1.16)	-4.32	2.86*	0.007
Confusion	3.75(1.61)	7.66(0.89)	- 3.91	2.16*	0.002
Depression	3.81(1.59)	7.42(1.51)	- 3.61	3.41*	0.000
Fatigue	4.23(1.38)	8.14(1.29)	- 3.91	3.09*	0.026
Tension	3.69(0.76)	7.81(1.33)	- 4.12	4.81*	0.008
vigor	11.54(1.34)	6.39(1.68)	5.15	4.29*	0.001
Sig					*(p≤ 0/05)**

Results of correlation coefficient test and Pearson test dindicated significant relationship between negative mood and students achievement(r = 0/43). Depression(r= -0/45) and Tension (r= -0/56) have higher effect on achievement in winner teams(Table 2). But in losers teams there weren't significant and meaningful relationship between tension and confusion with achievement ($p>0.05$). Finally it found that there is a meaningful relationship between mood and Achievement in winner teams group ($r = 0.41$).(Table2).

Table - 2

Relationship between Mood Sub-scales and Achievement

Sub-scales	Winner teams(n=12)	Losers teams(n=26)
Anger	- 0.12 *	- 0.18 *
Confusion	0.097	- 0.11
Depression	- 0.45 *	- 0.21*
Fatigue	- 0.26 *	- 0.13 *
Tension	- 0.56 *	- 0. 091
vigor	+ 0.16 *	0. 16 *
Sig		*(p≤ 0/05)**

Team cohesion is another influential factor on achievement in winner's teams. Pearson coefficient test show that there is a negative and meaningful relationship between tension (r = 0.29), depression(r= 0.18), Fatigue(r= 0.16 and pre -competition anger (r = 0.31) with team cohesion. But there weren't significant relationship between tea cohesion with others sub-scales (table 3).

Table - 3

Relationship between Mood Sub-scales and Achievement

Sub-scales	Anger	Confusion	Depression	Fatigue	Tension	Vigor
Team cohesion	0.31 *	0.146	0.18 *	0.16 *	0.29 *	0.071
sig	0.01	0.16	0.000	0.009	0.04	0.071

Paying attention to negative and non-effective moods in athletes and the ability to control the destructive emotions of performance is the main part of preparation programme of the Olympic and elite athletes. Physical preparation (exercise regimens, skill, strategies) alone does not guarantee success at the athletic competitions, paying adequate attention to factors e.g. self-confidence, self-management, adequate emotional energy, awareness of one's and others feelings and emotion management would lead to transfer of learnt skills from exercise sessions to competition time in a positive manner (Gheze Soflu, Esfahani. & Assadi, 2011). The results of present study indicate that behaviour traits of athletes before competition could be as an effective variable in predicting the rate of team cohesion and thereby athletes' achievement that is consistent with the researches of Beedie et al (2000), Scott (2002) and Lowther (2003) who stated that mood of athletes before competition is an important factor in predicting the rate of efficacy of them. He suggesting that poor performance is associated with a failure to get into an appropriate mood (Scott et al., 2002; Lowther & Lane, 2002); and Beedie, Terry, & Lane, 2000).

Results show significant and reverse relationship between negative mood and achievement in college students(r = 0/43). Depression(r= -0/45) and Tension (r= -0/56) have higher effect on achievement in winner teams that is consistent with results of previous researches performed in this field. Beedie et al. (2000) showed that pre-competition mood was an effective predictor of a single performance. Meta-analysis results for open-skilled sports, which would include soccer were supportive of the predictive effectiveness of pre-competition mood on performance (Effect sizes: Tension = -0.21; Depression = -0.42; Anger = -0.28; Vigor = 0.48; Fatigue = -0.34; Confusion = -0.34). Morgan (1980) popularized mood research in sport with findings showing successful performance was associated with above average vigor coupled with below average anger, confusion, depression, fatigue, and tension[20]. Lane (2001) and Andrew (2004) in their investigations concerning performance downfall in runners, stated that anger, and negative tension before competition are of main factors weakening performance in these athletes. In his research concerned the relationship between mood and the performance of taekwondo players of Philippine national team (Lane 2001, and Andrew et al, 2004). Pieter, Wong, & Ampongan,. (2006) in similar research stated that tension and negative excitements, anger, lack of energy adjustment and anger before competition are the main factors decreasing the performance of athlete.

Harald (2007) and Mathew (2001) reported that the quality of practicing sessions, place of competition (host or guest) and performance level of athlete in previous competitions could have significant effects on their performance. So team coaches should plan and use incorporate strategies in training sessions to control negative moods in major competition. Lane & Chappell (2001) showed that mood-performance relationships in basketball increased when performance was assessed using a self-reference measure although Stevens & Lane (2001) showed the most popular and effective strategies among a sample of 107 athletes to be exercise, listening to music, talking to or being with someone, and thought control. More recently, Hewston et al (2005a, 2005b) showed music to be effective at generating pre-competition mood states associated with successful performance and effective coping; and they emphasized the individualized nature of affective responses to music .

Findings of this study showed that tension, Fatigue, depression, and vigor have strong relationship with the performance of college students, therefore using practical strategies in this field and reviewing them in practicing

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sessions could have significant role in optimization of these factors. But some researchers believe that behavior traits of athletes are related to hereditary issues and practicing has no influence in optimizing them. Andrew (2007) showed that type A athletes have negative behaviour traits (high anxiety and tension levels) compared to B type athletes that can have negative influence on delicate skills.

Team cohesion is another influential factor on achievement in winner teams. Pearson coefficient test show that there is a negative and meaningful relationship between tension (r = 0.29), depression(r= 0.18), Fatigue(r= 0.16) and pre -competition anger (r = 0.31) with team cohesion. Based on the findings of James (2002), anger and tensions before game on one hand could decrease individual performance, and on the other hand lowers the rate of team cohesion. Bray (2001) believes that basketball players' attempt rate in achieving success with high performance is effective in increasing team cohesion and states that goal making and consistency of individual goals to team goals have important role in increasing team cohesion. Ramezani Nejad 2009), Heuze (2006) and Lowther (2003) also reported in their research results that team cohesion is an effective variable affecting team achievements.

Conclusion

Based on results, it is concluded that the mood is more strongly related to performance in collegiate athletes.

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A Comparative Study of Aptitude for Physical Education Career between Physical Education and Non-physical Education Boys

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Abstract

The purpose of the study was to find out the difference in physical education career aptitude between physical education and non-physical education male youth. It was hypothesized that there exist no difference in aptitude for selecting physical education as a career between physical education boys (undergoing physical education professional courses) and non-physical education students. This ex-post-facto study was conducted on 300 college youth (150 in each group) with 18+ age (mean age 22 years). Their aptitude was assessed through newly constructed and standardized Aptitude for Physical Education Career Inventory by the investigator. The reliability of the test is 0.89 and validity axiomatic. Data were statistically treated and analyzed as per the objectives of the study, mean, SD. SE and t ratio were calculated and comparisons made. Results show significant difference between physical education and non-physical education boys in aptitude for physical education career. Physical education boys are superior in physical education aptitude to the non-physical education boys.

Key words : *Aptitude, Career, Physical Education, Non-physical Education.*

Introduction

The focus of testing for teaching aptitude is to determine/ select students who genuinely wish to teach. Such individuals need to possess qualities like open mindedness, curiosity, love for children and knowledge about teaching as a profession and people (thinkers and educational psychologists). Recent studies have provided substantial evidence in favour of two propositions: teacher quality is an important determinant of student achievement; and teacher aptitude has declined substantially over the past generation. Notably, good teaching is, in fact, complex and challenging, and even the best teachers face difficulties translating formal knowledge into effective practice (Blase, 2006).

Teaching Aptitude in Physical Education

Within the ambit of education, physical education is a specialized area of learning in which variety of motor skills, movement skills, sports & athletic skills are acquired, performed, practiced and applied by the students at school with a view to (a) maintain a good level of health and fitness, and (b) to develop such abilities as might be important to shape up as good sportspersons within limits of one's genetic potential. Physical education does entail classroom teaching as does general education, but by and large, it is replete with diverse physical activities performed in the gymnasiums, athletic track, playing courts, swimming pools, etc. Therefore, only the people with special aptitude for physical activity, skill learning and teaching, engaging in sport and play activities, plus teaching aptitude should need to adopt physical education as a professions.

While the ability of a subject teacher (English, physics, chemistry, history or biology) is seen at play in classrooms, the worth of a physical education teacher is better evaluated on the field of play while carrying out practical teaching of wide variety of activities such as minor and major games, sports, gymnastics, swimming. etc.. So it is natural for young men and women with good sport and activity background to embrace physical education as a profession. From a cursory look at the physical educators at schools and colleges one can make out what kind of individuals these people are - strong, sturdy, muscular, agile, energetic and athletic - engaging in various activities almost five to six hours a day besides attending theory lessons.

Briefly, an aptitude is a person's ability acquired or innate, to learn or develop knowledge or a skill in some specific area (Singh,1987). Like intelligence, it is both a concept and a construct - a combination of different factors. People having some special abilities or potentialities do well in some domain of activity. With special types of aptitude

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they are able to acquire necessary skills to carry out their work in a specialized field. Further success or achievement in one's field of knowledge or interaction depends to a great extent one's attitude and interest are translated into action.

In sum, aptitudes are the special skills, knowledge and interests in one or more areas such as business, mechanics, administration, defense service, teaching or anything else. In Webster's Medical Dictionary (2002), is defined as 'a natural or acquired capacity or ability especially a tendency, capacity or inclination to learn or understand.

Objective of the Study

The major objective of the study was to find out the differences in physical education career aptitude between physical education boys(undergoing professional physical education courses) and non-physical education boys.

Hypothesis

It was hypothesized that there would be no difference in aptitude for selecting physical education as a career between physical education and non physical education boys.

Methodology and Procedure

The population identified for the study was college youth of 18+ age (mean age 22 years) of local physical college and nearby physical education colleges of Patiala. Out of it, a convenient sample of 300 young students was taken as subjects for the study - 150 students undergoing bachelor and master's courses in physical education at a professional college and 150 non-physical education boys studying arts and science subjects in general colleges.

Aptitude was assessed by using a specially constructed and standardized Aptitude for Physical education career Inventory by this investigator by initially selecting a sample of 100 collegiate youth (50 physical education boys and girls undergoing physical education professional courses and 50 non-physical education students) 18 plus Age (mean age 22 years) who volunteered to readily respond to the questionnaire.

The typical steps in the construction of the test included (1) Defining the domain in specific terms, (2) Defining the population on which test is meant to be used, (3) Collecting and creating pool of items which adequately cover the domain, (4) Validating the items (using the panel of experts who may add or delete some items and suggest changes, if deemed necessary, (5) Pilot testing your items, an (6) Validating and norming the items (after pilot test)

First a pool of 100 statements (in English & vernacular) was developed which then pruned to 70 (seventy). With item analysis, The final inventory was shortened to 40 items covering six sub factors. The internal consistency of the sub-factors is given below (Table no.1). Each item was to be scored on 5-point Likert Scale. The scoring scale was reversed in case of items which ran in the opposite direction.

Table -1

Internal Consistency of the Sub-Factors

Sr. No.	Name of the Sub-Factor	Validity Coefficient Raw and Standardized
1	The Influence of the personality of school physical education teacher	.47 (.49)
2	Inherent interest in physical activity	.67 (.69)
3	Attraction towards active teaching profession	.52 (.52)
4	Faster job opportunity	.15 (15) *
5	Expansive social canvas for recognition	.54 (.55)
6.	Opportunity for keeping healthy and fit	.47 (.50)
7	Making sports as career	.53 (.55)
8	Individual personality (Body Build)	.26 (.29) *

* Indicates deleted sub-factors

The data collected on the initial sample of 100 subjects were statistically treated, analyzed and interpreted keeping the purpose of the study in view. The test reliability and validity, were calculated to strengthen test construction procedure. The 40-item Inventory is reliable (.89 Cronbach Alfa) and axiomatically valid with internal consistency shown in table -1. Thus the test is capable of differentiating between those who have aptitude for choosing physical education as a career and those who do not have such an aptitude.

Data Analysis

Statistically treated data in respect of the sample 150 physical education boys and 150 non-physical education boys are presented and analyzed as per the objectives of the study. Descriptive statistics and t ratio are depicted in table no.2.

Table - 2

Descriptive Statistics and t ratio of the Sample

Group	Type of group	N	Mean	S.D.	S.E.	t ratio at .05 level
1.	Phy.edu. boys	150	154.22	17.37	1.41	
2.	Non Phy.edu. boys	150	146.09	22.47	1.83	1 and 2 (8.13) 2.87*

*Indicates significant t at .05 level

Table -2. shows that the mean score of physical education boys is 154.22± 17.37 and in case of non-physical education boys' mean score is 146.09± 22.47clearly reveal the superiority of the physical education boys in aptitude over the non-physical education boys.

Statistical results of the study clearly reveal the superiority of physical education boys in aptitude over the non-physical education boys .A visible incongruence such as unusually higher mean score in case of physical education boys or comparatively low mean score in case of non-physical education boys may possibly be there due to sampling error. The t ratio between two sub-samples in case of physical education boys and non-physical education boys has been found to be significant at .05 level of confidence. This is a straight reflection on the discriminating power of the aptitude.

Conclusion

Within the limits and limitations of the study, it was concluded that students with physical activity background are superior in aptitude in physical education as a career option that those having no physical activity background.

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Comparison of Self-concept between B.P.Ed. and B.Ed. Female Collegiate Students of Lucknow University

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Abstract

The purpose of the study was to compare self-concept of B.P.Ed. and B.Ed. female collegiate students of Lucknow University. Forty (40) female students studying at Lucknow University Associated Colleges were randomly selected - 20 each from B.P.Ed. and B.Ed courses. The criterion measure chosen to test the hypothesis in this study was Self-concept Questionnaire of Dr. Raj Kumar Saraswat. The data was collected through direct contact with the respondents. The results revealed significant difference between B.P.Ed. and B.Ed. girl students on their self concept as the calculated t ratio was 4.03, which was greater than tabulated t value 2.025 at .05 level.

Key words : *Self-concept, B.P.Ed., .BEd.*

Introduction

Success and failure of an athlete in competition greatly depends on how the athlete is able to blend appropriately his or her physical conditioning, training, mental preparation and playing ability when competing under pressure. In team sport, coordination and cooperation of team members are important. If one is lacking in one of these aspects, it is very difficult to achieve success in competition.

Self-concept is a highly important personality trait and a complex component of behaviour, comprising both cognitive and effective dimension. It has at least four orientations: the real self, the perceived self, and the ideas self and the self as perceived by others. The flexibility of these orientations of the self-offers concerning exploring situational specific behavior within the sport framework. Further, attitude, real or perceived can be obtained from a variety of perspective from both and athletes and others.

Self-concept is learned by an individual in reference of his unique experiences. The individual perception how others feel about him strongly influence his self-image. In turn, self-concept may prove the most powerful motivation for specific behaviour. This type of behaviour depends upon what one feels is capable of and appropriate to his need. Thus self-concept and unique behaviour pattern of an individual resembles the relationship between egg and chick.

According to Rogers, one's self-concept influences how one regards both oneself and one's environment. The self-concept of a mentally healthy person is consistent with his or her thoughts, experiences, and behavior. However, people may maintain a self-concept that is at odds with their true feelings to win the approval of others and "fit in," either socially or professionally. This involves repressing their true feelings and impulses, which eventually causes them to become alienated from themselves, distorting their own experience of the world and limiting their potential for self-actualization, or fulfillment. The gulf between a person's self-concept and his or her actual experience (which Rogers called incongruence) is a chronic source of anxiety and can even result in mental disorders.

As an academic exercise, the study was undertaken to explore how female collegiate physical education majors (B.P.Ed. students) compared with their counterparts in education (B.Ed.. students) of Lucknow University on self-concept.

Methodology

40 female students in all (20 B.P.Ed. and 20 B.Ed) of associated colleges of Lucknow University sample were randomly selected as the sample of the study. The criterion measures chosen for testing the hypothesis was the self-concept scores of the subjects obtained by using self-concept Questionnaire (SCQ) developed by Dr. Raj Kumar Saraswat. (r=0.91). The self-concept questionnaire provides six separate dimensions of self-concept viz. physical,

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social, temperamental, educational, moral and intellectual self-concept. It also gives a total score on self-concept Briefly the six dimensions comprising self-concept are as under:

- **Physical :** Individual's view of their body health, physical appearances and strength.
- **Social :** Individual's sense of worth in social interaction.
- **Temperamental :** Individual's view of their prevailing emotional state or predominance of particular kind of emotional reaction.
- **Educational :** Individual's view of themselves in relation to school, teacher and extracurricular activity.
- **Moral :** Individual's estimation of their moral worth, right and wrong activities.
- **Intellectual :** Individual's awareness of their intelligence and capacity of problem solving and judgments.

Each item is provided with five alternatives. Responses were obtained on the test booklet itself. There is no time limit but generally 30 minutes is found sufficient for responding to all the items. The research scholar supervised the group and verifies that they were responding in a desired way.

The respondent was provided with five alternatives to give his responses ranging most acceptable to least acceptable description of this self-concept. The alternatives or responses were arranged in such a way that the scoring system for all the items remained the same i.e. 5, 4, 3, 2, 1 whether the items were positive or negative. If the respondent put () mark for first alternative the scores is 5, for the second alternative the score was 4, for third alternative the score was 3, for the fourth it was 2 and for the last alternative the score was one. The sum of scores of all the forty-eight items provided the total self-concept of an individual. A high score on this inventory indicates a high self-concept, while a low score indicates a low self-concept. The scores of each item were transferred to the front page against that item. All the scores of eight items given in that column were added up which represented that particular dimension of self-concept.

To ensure maximum co-operation from the subjects, the research scholar contacted subjects personally. Before the questionnaire was administered, The purpose of study was clearly explained to them clearly removing all ambiguity from subject's mind regarding response procedure.

The investigators administered the questionnaires, through direct contact with the respondents., who were requested to respond to the questionnaires as per instructions. The test sheets were collected after all respondents had completed it within reasonable time. The scoring was done as per directions contained in the manual. Descriptive statistics such as mean and standard deviation and comparative statistics like t ratio were calculated as per objectives of the study. To test the hypothesis, level of significance was set at 0.05 level.

Results and Discussion

The results of study in terms of mean, standard deviation and t ratio are depicted in table-1

Table - 1

Mean, SD and t Ratio of the Two Groups on the Level of Self-concept

Group	N	Mean	SD	t Ratio
B.P.Ed.	20	190.30	8.46	4.07*
B.Ed.	20	177.60	10.38	

Significant at .05 level

Tab $t_{0.05}$= 2.025

In table-1, far superior mean performance on the self-concept test is shown by the B.P.Ed. students in as compared to that of the B.Ed. students. As a result the t ratio between the two sample mean performances is 4.07, which is greater than the tabulated t value of 2.025 at .05 level. The significant difference in self-concept between under-training female collegiate bachelors of education and the female bachelors of physical education may be due to the fact that the latter are generally physically stronger, healthier and more physical fit than their counterparts in

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education which gives their personality a better shoe-shine, hence naturally a better self-concept. They have a better sense of relationship with the social surroundings in which they train so vigorously. They view their prevailing emotional state or predominance of particular kind of emotional reaction as an outcome of their physical effort in which they engage for a better part of the day in routines. They seem to have a better problem solving ability and better judgment of the situation during critical competitive situations.

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Prediction of Back Stroke Swimming Performance with the help of Selected Psychological Characteristics of Physically Challenged Swimmers of India

Pooja Mishra*

Abstract

The study was conducted a purposive sample of 51 physically challenged swimmers (for back stroke event) with 18-25 age range. The objectives of the study were to (a) chart out the psychological characteristics of national level physically challenged swimmers; (b) determine the relationship of swimming performance with different psychological characteristics of the subjects of the study; and (c) predict swimming performance from selected psychological characteristics of the national level physically challenged swimmers. Data collection was done using various standardized psychological tests. Relationship found in between performance in the back stroke event and several variables.

Key words : *Physically challenged, Back stroke, Psycho-characteristics.*

Introduction

Innovations in science and technology have had a remarkable steep rise during past couple of decades. As in other domains of life, it has greatly revolutionized the standard of sporting skill and performance across the world. Coaches and scientists are reaping the crop of benefits to help athletes improve performance. The most important quality of sports is "movement", i.e. "human body in motion". It is our prime concern is to develop sports for integrating the world with able-bodied peoples and also others regardless of their physical and mental ability. This approach assumes that sport for the disabled (physically challenged) has at least some part in similar function as the sport for the able-bodied. Sports is playing a key role in the life of the able-bodied and the disabled by way of uplifting their standard of living and providing them much needed recreation.

Benefits of sports to the individual and the society are varied and vast e.g. social interaction, integration, recognition, all-round wellbeing, promotion of culture, and the like. This is true about the able-bodied and the disabled. In the present study, an effort was made to study the different psychological characteristics of physically challenged swimmers as they related to their performance prediction. Hence, the purpose of this study was to predict back stroke swimming performance on the basis of selected psychological characteristics of physically challenged swimmers. Precisely, the objectives of the study were to (a) chart out the psychological characteristics of national level physically challenged swimmers; (b) determine the relationship of swimming performance with different psychological characteristics of the subjects of the study; and (c) predict swimming performance from selected psychological characteristics of the national level physically challenged swimmers.

Methodology

Fifty one (51) physically challenged swimmers (for back stroke event) were taken as subjects for the present study. They participated in the National Paralympics Swimming Championships during 2011-12 organized by the Swimming Association of India for Disabled (SWIMAID). The sample was purposive. Only the physically challenged swimmers were considered for the study. Their chronological age range was 18-25 years.

Based on literature review and expert opinion, the variables included in the study were: achievement motivation, anxiety, personality, will-to-win, social adjustment, self-concept, frustration, locus of control and sports confidence.

To define level of competitiveness or performance swimming times were given a score using the method often used in swimming meets to compare results in different events and gender. This method has been used in several research papers by Daly et al on the Paralympics swimmers. The method uses the following formula:

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To obtain a more normal distribution of performance, results required to run some statistical application, all swimming times were converted to a point score using the following function:

Points=(C*10 / Time) ^3

Where, C= Constant based on World Record for Class S-10.

(The point system is based on a function in which the World Record for each event –gender- stroke-class and distance receives 1000 points).

Result and Data Analysis

The results of the study are presented in the tables and figures. The statistical analysis of data was done with help of SPPSS software 17.0 version. The descriptive statistics was applied to characterize the psychological characteristics of National Swimmers aged 18-25 years of India. To determine the relationship of psychological characteristics with the swimming performance, the data collected were analyzed using the correlation matrix (Pearson Correlation). (3) Regression equation was formed with psychological characteristics and Swimming Performance of National Physically Challenged Swimmers of India.

Table - 1

Descriptive Statistics of Psychological Characteristics of National Physically Challenged Swimmers (Back Stroke Event)

Back Stroke	Mean	SD
Achievement Motivation	27.25	4.510
SCAT	18.17	4.154
Extraversion	10.66	4.052
Neuroticism	13.28	4.651
Will to win	6.55	1.588
Social Adjustment	15.62	5.589
Emotional Adjustment	15.13	3.363
Self-Concept (Intellectual)	11.40	3.477
Self Concept (Aesthetic)	7.81	2.010
Self Concept (Character)	22.98	4.012
Self Concept (Social)	10.68	3.551
Self Concept (Emotion)	17.21	6.243
Aggression	38.09	5.043
Resignation	39.51	4.987
Fixation	36.91	5.933
Regression	35.62	4.970
Rotter's Locus of Control	9.26	2.809
Sports Confidence	70.15	12.385

From table 1, it is evident that in back stroke event, the mean value of Achievement Motivation is 27.25 ±4.510, SCAT 18.17 ±4.154, Personality (Extraversion) 10.66 ±4.052, Personality (Neuroticism) 10.66 ± 4.052, Will to Win 6.55 ±1.588, Social Adjustment 13.28 ±4.651, Emotional Adjustment 15.62 ±5.589, Sc-I 11.40 ±3.477, Sc-A 7.81 ±2.020 was, Sc-C 22.98 ±4.012, Sc-S 10.68 ±3.551, Sc-E 17.21 ±6.243, Aggression 38.09 ±5.043, Resignation 39.51 ±4.987, Fixation was found to be 36.91 ±5.933, Locus of Control 9.26 ±2.809, and mean value for Sports Confidence is 70.15 ±12.385.

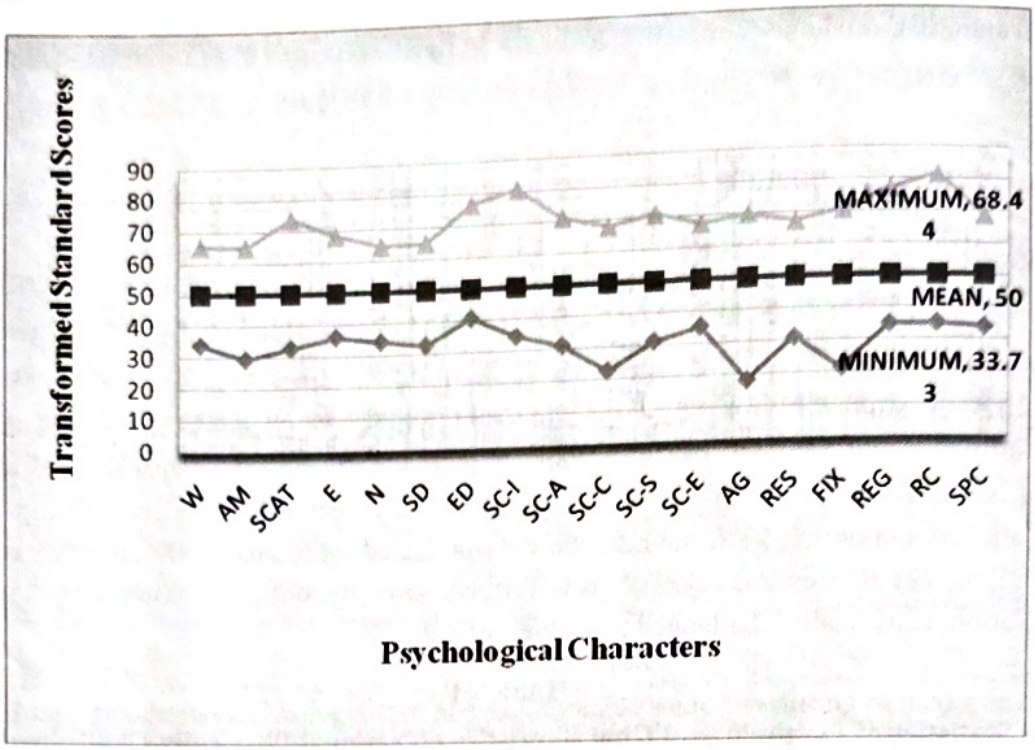

Figure -1 : Psychological Profile of Physically challenged Swimmers in Back Stroke Event

Table-2

Relationship of Psychological Characteristics with the Swimming Performance in Back Stroke Event (N=51)

Psychological Variables	Correlation (r)
Achievement Motivation	.412*
SCAT	-.268
Personality (Extraversion)	.693**
Personality (Neuroticism)	-.595**
Will to win	.628**
Social Adjustment	682**
Emotional Adjustment	.555**
Self-concept (Intellectual)	.316*
Self-concept (Aesthetic)	.265
Self-concept (Character)	123
Self-concept (Social)	121
Self-concept (Emotion)	-.141
Aggression	-.060
Resignation	.008
Fixation	-.179
Rgression	-.029
Roter's Local of Control	.374*
Sports Confidence	.447*

* Significant at the 0.05 level (2-tailed), Tab. 'r'= 0.288 at "df" =49
** Significant at the 0.01 level (2-tailed).

From Table-2 it is revealed that in Back Stroke event Achievement Motivation, Extraversion, Will to Win, Social adjustment, Emotional adjustment, Self-concept-I, Locus of control and Sports Confidence were positively related with the performance of physically challenged swimmers. However, Sports Competition Anxiety,

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Neuroticism Aggression and Regression are found negatively correlated with it. Self concept-A, Self concept-C, Self concept-S, Self concept- E, Fixation have insignificant correlation with the performance of physically challenged swimmers in Back Stroke event.

To determine the Regression equation of Psychological characteristics with the Swimming Performance (Free style and Back Stroke) of Physically Challenged Swimmers the data collected were analyzed using Linear Regression (Method = Stepwise) in SPSS version=17.0 and data pertaining to that have been presented in table number 3 to table number 5:

Table - 3
Model Summary (Back Stroke)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.693[a]	0.480	0.469	76.691
2	0.765[b]	0.585	0.568	69.179
3	0.828[c]	0.685	0.665	60.955

a. Predictors: (Constant), E
b. Predictors: (Constant), E, SD
c. Predictors: (Constant), E, SD, AM

Three regression models have been presented in table-3. In the third model, the value of R^2 is 0.685, which is maximum and therefore, third model was selected to develop the regression equation. It can be seen from table-3 that in the third model three independent variable viz. Extraversion, Social Adjustment and Achievement motivation have been identified and therefore the regression equation was developed on the basis of these three variables only. Since R^2 for this model is 0.685, therefore these three variables explained 68.5% variation in the performance of back stroke in swimming performance of physically challenged swimmers.

Table - 4
ANOVA for Regression Models in Back Stroke Event

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	265863.129	1	265863.129	45.203	.000[a]
	Residual	288195.027	49	5881.531		
	Total	554058.157	50			
2	Regression	324342.420	2	162171.210	33.886	.000[b]
	Residual	229715.737	48	4785.745		
	Total	554058.157	50			
3	Regression	379428.380	3	126476.127	34.040	.000[c]
	Residual	174629.777	47	3715.527		
	Total	554058.157	50			

a. Predictors: (Constant), E
b. Predictors: (Constant), E, SD
c. Predictors: (Constant), E, SD, AM
d. Dependent Variable: BC

In table - 4 ANOVA tests the null hypothesis that there is no linear relationship between the predictor and the DV. For the Model III, when the three predictors (E, SD, AM) were entered, the significance level associated with observed value of F(34.040) is 0.000[c]. Thus the null hypothesis can be rejected and we may conclude that there is a significant linear relationship between the set of independent variable (IVs) and dependent variable (DVs).

Table-5

Coefficient of Regression Equation in Back-Stroke Event

Model		Non-standardized Coefficients		Standardized Coefficients (Beta)	t	Sig.
		B	Std. Error			
1	(Constant)	-28.874	33.191	.693	-.870	.389
	E	19.759	2.939		6.723	.000
2	(Constant)	-82.398	33.628	.440	-2.450	.018
	E	12.556	3.358	.411	3.740	.000
	SD	8.237	2.356		3.496	.001
3	(Constant)	-269.388	56.889	.373	-4.735	.000
	E	10.626	3.001	.432	3.541	.001
	SD	8.656	2.079	.320	4.164	.000
	AM	7.416	1.926		3.850	.000

a. Dependent Variable: BC

Table-5 displays the value of the coefficient in the regression equation and measures the probability that a linear relationship exists between each predictor variables and the D.V. In this table 'B' is the slope of the line. 'SE B' is the standard error of 'B. 'Beta' is the standardized regression coefficient. 'Sig' is the significance level for null hypothesis test that the value of coefficient is zero in the population.

In model, the significance value for Extraversion, Social adjustment and Achievement motivation, was less than 0.05. Therefore, the null hypothesis that there will be no linear relationship between this predictor and swimming performance can be rejected and the variables like Extraversion, Social adjustment and Achievement motivation could be taken for prediction.

The resultant regression equation is:

Swimming Performance (Back Stroke) = -269.388(Constant) + 10.626(Extraversion) + 8.656 (Social Adjustment) + 7.416 (Achievement Motivation)

The equation estimates that for the sample survey 68.5% of the variation in DV (Swimming Performance i.e. back stroke) is explained by the area of Extraversion, Social adjustment & Achievement motivation contained in the nine psychological variables.

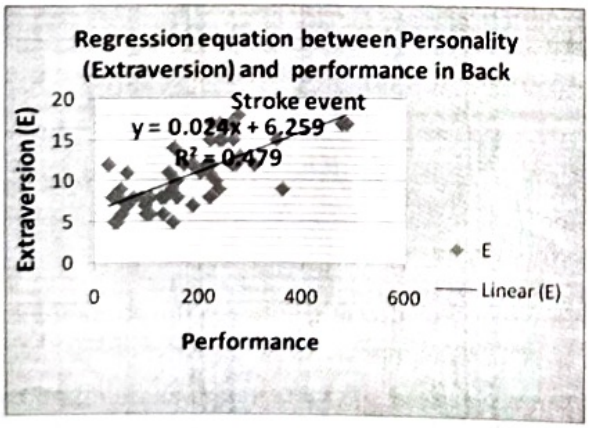

Figure : 2

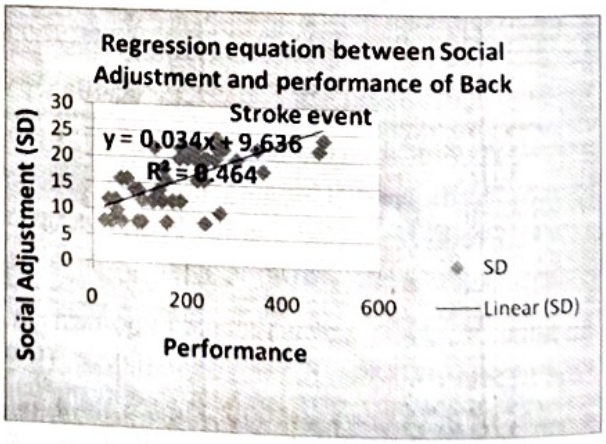

Figure : 3

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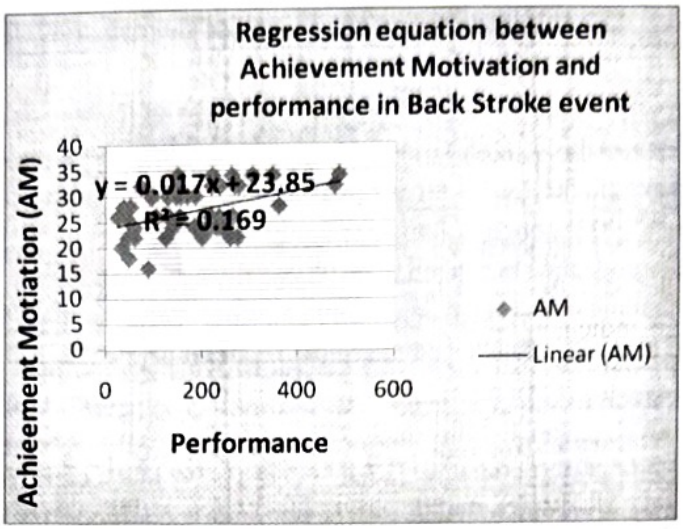

Figure - 4

Discussion

The results of the study indicate that there is a significant relationship found between Achievement Motivation and Performance; this of supported by Perreault, &. Vallerand, (2007), who showed that intrinsic and extrinsic motivation as well as a-motivation were found to be present in this sample of wheelchair basketball players. Results also demonstrate that the participants surveyed in the study scored higher on self-determined types of motivation than non- self-determined types of motivation, thus replicating past research with athletes without disability. Furthermore, wheelchair basketball players with and without disability did not differ significantly with respect to sport motivation and coping skills, suggesting that they are more alike than dissimilar. Finally, results revealed that self-determined

Sports Competition Anxiety is negatively correlated with the performance of physically challenged swimmers in Back Stroke event. The result may be attributed to the fact that whenever an athlete prepares for the upcoming competitions, there are five types of antecedents (factors) which lead to a increase in anxiety: (1) fear of performance failure (2) fear of negative social evaluation, (3) fear of physical harm, (4) fear of situation ambiguity and (5) fear of disruption of well-learned routine (Endler, 1978). Along with this fact, lack of experience and lack of mastery over a particular skill is another reason for high anxiety in the swimmers.

The study has revealed that Personality (Extraversion/Introversion) is significantly related to the performances of physically challenged swimmers in back stroke event. This might be due to the fact "extraverts are the products of that nature and culture which is influenced by the societal environment." Vanek & Cratty (1970) observed that some sports activities can be defined on the basis of certain traits that are characteristics of such activities. The investigator believes that activities like swimming and distance running require a high level of determination, persistence, durability and usually introversion, emotional stability and self control. Average or above average intelligence, self discipline and strategically thinking denote to a team game participant. Bawa & Randhawa (2003), investigated personality traits of sportsmen of individual, combative and team sports disciplines, the result of the study revealed that sportsmen of individual sports disciplines (gymnastics and swimming) were significantly more reserved, humble, sober and relaxed.

Further Neuroticism is found negatively correlated with the performance of Back Stroke events of physically challenged swimmers. The Neurotic behaviour of physically challenged swimmers may be attributed to the fact that Neuroticism or emotionality is characterized by high levels of negative affect such as depression and anxiety and neurotic people, who have low activation thresholds, are unable to inhibit or control their emotional reactions, experience negative affect (fight-or-flight) in the face of very minor stressors - they are easily nervous or upset. Lanet Terry (2000) proposed a conceptual model showing that "depression is a moderating variable that determines how

other moods affect performance. Depression is believed to increase the negative effects of mood upon athlete's behavior".

The study has also reveals Will to Win to be significantly high in the physically challenged swimmers in relation to their performance. Will is the determination of the mind coupled with bodily resources: strength, vitality, agility, speeds etc with which a person is forwarded for a goal. The Following studies partially supported the result of the findings: Plinta & Sobiecka (2002) concluded in their study that active going in sports not only improves the physical condition of the handicapped but strengthen them physically as well psychically. Kirby (1995) studied with wheel chair athletes and the data indicated that the opportunity to achieve and maintain fitness was a major reason for individuals with disabilities to play wheelchair netball. Only 3 (8.3%) of the subjects with disabilities nominated "winning" as a motivation to play wheelchair netball.

The data analysis shows that Social Adjustment (Social & Emotional scale) is significantly related to the performance of physically challenged swimmers. As social beings we live in a society, we form opinions about others and others have opinions about us. Everybody wants acceptance and recognition from and within society. We try to behave according to the norms of the society so that we can adjust with others. But it is not an easy task as the personality of each individual is a unique organization. Labronici et al. (2000) studied to make use of sports as a rehabilitation method, as well as to assess the physical, psychological, and social aspects of those present some physical handicap, particularly those who have some kind of chronic disease and are no longer taking part in any rehabilitation program. The result showed both basketball and swimming groups presented with high vigor and low depression levels. Considering the social aspects, both groups presented substantial improvement, especially regarding their relationship to one person or more people and also in the everyday activities (be it social, leisure, or domestic), thus leading them to better social integration. Kirby (1995), surveyed 57 (36 disabled and 21 nondisabled) participants in wheelchair netball. The reasons given most often for becoming involved in wheelchair netball were "enjoyment" and "to meet people and/or socialize". According to Petipus (1993) a subsequently principle component explanatory factor analysis with a varimax rotation resulted in the identification of four factors labeled as- exclusivity, self-identity, social-identity and negative affectivity. These results were a confirmation of the multidimensionality of the AIMS with a population of adolescent swimmers with disabilities.

In Back stroke events self-concept (intelligence scale) is found significantly related to the performance. In a nutshell, it can be said that self concept is positively related with achieving the optimum performance by an athlete. What an individual thinks about himself is therefore of vital significance as he would strive to become in reality what he conceives to be in thought. In the importance as it forms the basis of all his behavior. Self concept is another most important single attribute and key to understanding the behavior of an individual. The important role of self-concept as a determinant of human behavior and its acceptance of a concise measure and critical factor of personality is increasingly realized. Vanlandewijck et al, (2008), studied to investigate athletic identity, self-esteem and physical self-perceptions in Flemish athletes with a disability, to investigate the mutual relationships between those variables, and to evaluate their stability over time. Flemish athletes with disabilities possess a strong athletic identity and subsequent self perception, in which they identify themselves with being 'real athletes'. This athletic identity is imbedded in a broad self-concept approach, largely independent from performances. Hadd, (2004) investigated how self-efficacy and coping influences performance and performance related emotions in high performance youth swimmers. Correlation analysis found a positive relationship between self-efficacy and performance discrepancy and between performance discrepancy and positive affect. Subsequent Regression analysis found that performance discrepancy, and emotion-focused coping were significant predictor of positive affect. Sherril & Silliman, (1990), examined the self-actualization of male and female elite wheelchair athletes in comparison to the general population and to able-bodied athletes. In general, wheelchair athletes were similar to the general population. Hutzler &. Bar-Eli (2007) also support the present study to some extent.

On the contrary, Self concept-A, Self concept-C, Self concept-S, Self concept- E in Back Stroke event are found poorly related with the performance of physically challenged swimmers. It may be attributed to the fact that if we

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are talking about the "self-concept" as a whole, then it is found to be similar in able-bodied athletes, but if the different dimensions of self-concept viz. Aesthetic, Character, Social, Emotional dimensions, then individual differences are found to be associated with the performance and psychology as well of the physically challenged swimmers. Even in the present study they are only insignificantly related to the performance instead of affecting in a negative way.

The results of the study indicated that the Locus of Control (external scale) is found to be significantly related with free style and back stroke performances of the physically challenged swimmers. This might be attributed to the fact that in case of Physically Challenged, the situations or surroundings which are involved externally (environment) may be controlled in comparison to the internal factors (personal causes). MacManus (2010) studied the effect of appearance and intellectual disability identification on perception and affective and behavioral intentions towards individual with intellectual disabilities. Two studies examined the effect of appearance and identification on perception (i.e. agentic and communal) towards target. Studies 1 and 2 demonstrated that individual with atypical appearance were rated higher on communal than agentic traits. Study2 revealed that greater self-efficacy, expectation and lower anxiety were associated individual with atypical appearance and individual having intellectual disabilities. Hutzler & Bar-Eli (2007) have also supported the present study. Empirical research was reviewed according to the conceptual categories of an integrated model: (a) performance accomplishments and functional efficiency, (b) perceived self-efficacy, (c) self-concept and self-esteem, (d) personality disorders, mood states and locus of control and (e) activity level and social acceptance. This review suggests that most psychological constructs expressed within the empowerment model are positively affected by physical activity in disabled people, when applied properly. Bhadana (2002) assessed the relationship between the factors influencing sports career and psychological variables such as anxiety (cognitive and somatic), self-confidence, adjustment and achievement in state level sportsmen. The findings further revealed that "Luck" as an external factor having significant positive relationship to somatic anxiety, negative relationship to adjustment. Influence of 'high ups' also as an external factor having positive relationship to cognitive anxiety, negative relationship to self-confidence and adjustment. External control factors influencing the sports career having positive significant relationship to anxiety and negative significant relationship to adjustment in state level sportsmen.

Sports Confidence is also highly significantly related to the performance of physically challenged swimmers in relation to back stroke events respectively. It may be attributed to the fact that Sports Confidence is the belief or degree of certainty individual possess about their ability to be Successful in sports (Vaeley, 1986). Though the swimmers are physically challenged, they have shown their strong will to win, they are found to be highly motivated for achieving their goals, and they are adjusting with the surroundings to become more successful in their respective field. Therefore, it can be said that these swimmers are highly confident about their skills and performance in the pool.

Frustration (Aggression and Regression) was negatively correlated and Fixation and resignation were found to be insignificantly with the performance of physically challenged swimmers. It may be attributed to the fact that it is the factor which is involved in influencing the total mind setup of a sports person and may be defined as the interference or the obstacle in achieving a goal. Sources of frustration may be internal or external. When we are talking about the physically challenged swimmers, it can be concluded that their negative evaluation by society, lack of moral support and their reserve nature among peer-groups may be responsible for frustration that was found in such groups. Sometimes, young athlete's aggressive behavior is related to their team's "moral atmosphere", including team aggressive norms, player's perceptions of these team norms and coach characteristics and player's motives for behavior (Stephens & Bredemeier 1996). Sports anger is often evoked by stress and associated with arousal in competitions. Anger may affect performance by disturbing precision and concentration or by leading an athlete to injure another (Leif Isberg, 2000).

Conclusions

Within the limits and limitations of the study it was concluded that swimming performance of the physically challenged sportspersons was positively related to Achievement Motivation, Extraversion, Will to Win, Social

adjustment, Emotional adjustment, Self-concept-I, Locus of control and Sports Confidence; negatively related to Sports Competition Anxiety, Neuroticism Aggression and Regression; and insignificantly related Self concept-A, Self concept-C, Self concept-S, Self concept- E, Fixation.

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Recreational Sports Activities: Essentials Components of Psychological Well-being

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Rajnish Chandra Tripathi**

Abstract

Slide in fitness and increase in obesity in children and replacement of vigorous recreational sports activities by sedentary, indoor video-philia with far-reaching consequences has prompted the present study with an aim to examine the effect of recreational sports activities on the psychological well-being of children. The study was carried out with 100 randomly selected male children aged 8-12 by using Psychological Well-being Scale. An 8-week intervention programme was introduced to the participants to see the effect. Results show recreational sports activities to have potential enhancement of the psychological well-being of children.

***Key words**: Recreation sports activities, Psychological well-being, Physical health, Children, School.*

Introduction

"Wellbeing cannot exist just in your own head. Wellbeing is a combination of feeling good as well as actually having meaning, good relationships and accomplishment," says Martin Seligman. The mind-body interaction has been a focus of attention in psychology and physical education. It is never linear but complex to understand (Rainbow, 2009). By and large, physical educators and psychologists believe that humans are physical and mental beings whose both aspects are interrelated. Hence, mental health without physical health is difficult to think of. The World Health Organization (2003) defines 'mental health as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.' Recreational sports activities are essential sources of promoting optimal mental health and wellbeing.

Recreational sports activities are defined in juxtaposition to competitive sports. Individuals participating in a variety of informal recreational sports and circumstances engage in a range of exercises from modest to vigorous on either a regular or an inconsistent basis, which do not require systematic training or the pursuit of excellence and are without the same pressure to excel against others that are characterizes competitive sports (Maron & Mitchell, 1994; Kleiber, 1999). Psychological well-being represents a relatively stable positive state of life expressed in terms of happiness, self-satisfaction and life-satisfaction in harmony with reduced negative mood and depression (Taylor, Sallis & Needle, 1985).

Recreational sports activities provide opportunities to enjoyment, to build physical and social skills, to develop friendships and to promote mental health and well-being (Cunningham & Beneforti 2005; Light 2010; Reimers, Knapp & Reimers. 2012). Pleasure and 'kicking up dust' (Slater 2010:147) are also important mechanisms by which both traditional and non-traditional forms of sport and recreation can help to improve psychological wellbeing (Phipps & Slater 2010; Sabo, Miller, Melnick, Farrell & Barnes, 2005; VicHealth 2010). When children are able to exercise free choice and independence within a safe and secure environment (e.g., limits and guidelines), it enables children to develop trust, autonomy initiative and self-expressiveness and a sense of control over their environment (Erickson, 1963), which are cornerstones of mental health and well-being.

A problem for child development is the increasing over-structuring of children's time and play environments (e.g., with toys that have specific adult-defined purposes). For instance, when children have access to free rather than fixed play equipment, they are more likely to participate in vigorous physical activity (Willenberg et al., 2010). As a result of over-structuring and over-commercialization of play, Elkind (2007) suggests children are experiencing time stress due to over-scheduling of sport activities. Optimal play experiences in childhood this can contribute positively

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to developing skills in children needed to interact with the broader world in later life, including planning and initiating social activities, the initiative to create one's own opportunities for enjoyment and a desire for relatedness. However, when play is directed or over-structured by adults then children can become fearful, insecure or lack important self-regulatory skills such as initiative and persistence (Kleiber, 1999).

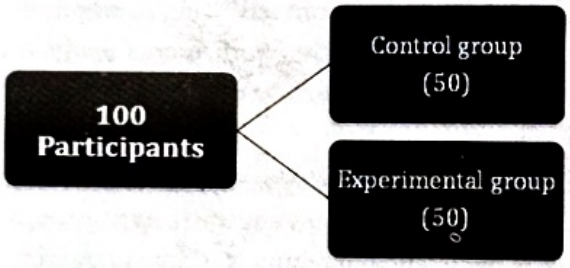
Unfortunately, recreational sports activities are not taken seriously by most parents, guardians, teachers and school authorities. There is a misconception about recreational sports activities that it is just the time spent. Children need to be encouraged to participate in recreational sports for the sake of their healthy development in an era of tough competition in all walks of life which permits little time for play. Although researchers have acknowledged the importance of recreational sports activities to the psychological wellbeing of children, very little research has been done to assess the relationship between recreational sports activities and the psychological well-being of children. The present study was designed to examine the effect of recreational sports activities on the psychological wellbeing of children.

Hypothesis

Based on literature review, it was hypothesized that recreational sports activities would be able to enhance the psychological wellbeing of children.

Methodology

The study was conducted on randomly selected 100 children aged 8-12 as subjects belonging to various local public schools Varanasi. They were divided into two equal groups and randomly assigned to control and experimental positions. The sample distribution is given below:



A 20-item psychological wellbeing scale developed by the investigators was used to collect requisite data. The scale covered such sub-variables as positive affect (e.g., feelings of optimism, cheerfulness, and relaxation), satisfying interpersonal relationships and positive functioning (e.g., energy, clear thinking, self acceptance, competence, autonomy). The participants were asked individually to rate themselves on 5-point scale range from 1= strongly disagree to 5= strongly agree on each item. The test-retest reliability of the scale was .72.

Intervention Programme

An 8-week programme was developed by investigators to examine the effect of recreational sports activities on psychological wellbeing of children. It was carried out for four days in a week and one hour daily. The programme consisted of various recreational sports activities such as:

- Lead-up activity for 8-10 year old children (e.g., ball throwing, ball catching)
- Major activity participation for the 10-12 year old (e.g., football, basketball)
- Limbering down activities (relaxation exercises) - 10 minutes

Results and Discussion

The data so collected were analysed by using simple statistics such as mean, standard deviation and t-test.

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Table - 1

Comparison of Psychological Wellbeing Measure of Control and Experimental Groups

Psychological well-being	Groups		*t - value*
	Control	Experimental	
Mean SD	58.38 6.79	79.30 8.37	13.76**

p<.01**

Table - 1 presents comparative statistics between control and experimental groups, indicating significant mean difference (13.76, p<01) between the two groups. This establishes that intervention programme has positive effect on the psychological wellbeing of children in public schools.

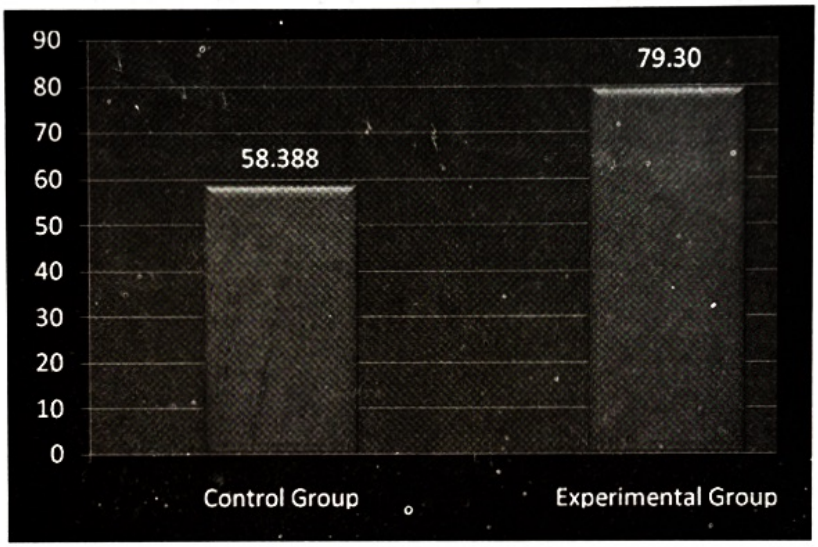

Figure - 1 : The group mean difference depicted through bar diagram

In the present study, the effect of recreational sports activities on the psychological wellbeing of children was examined. Results reveal that recreational sports activities enhance the psychological wellbeing of young children of public schools when they exposed to a structured recreational activities programme for adequate time. Several studies support these results i.e. recreational sports activities promote positive physical, mental health and psychological wellbeing (Cunningham & Beneforti 2005; Sabo et al. 2005; Light 2010; Phipps & Slater 2010; VicHealth 2010; Reimers et al. 2012). As per Erickson (1963) recreational sports activities or free-play affords not only physical development (e.g., gross and fine motor skills) but cognitive (problem-solving and creative thinking), moral (right and wrong), social (e.g., cooperation skills) and emotional development (self-regulation). The importance of recreational sports activities for the development of children lies in the fact that "When adults organize and structure children's free time, such skills and inclinations are not tested and extended. And if children become accustomed to having their free time structured, they are more likely to feel bored and helpless on the rare occasions when they are unsupervised" (Kleiber, 1999, p. 44).

Conclusion

On the basis of the results and within the limits and limitations of the study, it was concluded that recreational sports activities have potential to promote and enhance psychological wellbeing.

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The relationship between coaches and sports psychologists has been as bumpy as an old country dirt road. There is a fault on both sides.

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An Investigation of Progressive Muscular Relaxation Training Programme on Tripura Women Cricketer's Selected Psychophysical Parameters

Deepak Kumar Dogra*

Abstract

The aim of this study was to investigate the effectiveness of 4-week early preparatory phase (EPP) progressive muscular relaxation training programme (PMRTP) applied prior to cricketing training schedule on selected psychophysical parameters among 30 randomly selected female Tripura cricketers. The subjects were served as progressive muscular relaxation group (PMR group) on which treatment was assigned during EPP. Later on, the same group was also served as the control group (CG) on which no treatment was assigned during 4 weeks of late preparatory phase LPP. The data were analyzed by applying analysis of co-variance and post hoc test were analyzed to draw appropriate conclusions to find out the effect of 4-week early preparatory phase (EPP) progressive muscular relaxation training programme on selected psychophysical parameters variables. The significance level was set at 0.05. The data strongly advocated that there was significant difference in PMR group selected Tripura women cricketers on psychophysical parameters variables in comparison to the Control Group. The results showed progressive muscular relaxation training programme to be an effective training tool.

Keywords : *Progressive muscular relaxation, Psychophysical, Rating of perceived exertion, Heart rate and training.*

Introduction

Several available relaxation techniques may be categorized as mental relaxation or physical relaxation such as autogenic relaxation (AGR) and progressive muscle relaxation (PMR) respectively (Lehrer, 1996). The indication is that different relaxation techniques may induce different relaxation responses. For instance, in a comprehensive review of the effects of relaxation techniques, (Lehrer, 1996) concluded that methods with predominantly cognitive components such as AGR are likely to produce specific cognitive effects such as reducing anxiety and enhancing positive mood. Conversely, PMR, with its skeletal muscle emphasis, has been shown to affect muscular components such as those measured by surface EMG (Lehrer, 1996). Shapiro et al. (1980) observed that relaxation techniques were effective in reducing symptoms and intensity of anxiety and depression. They also observed significant differences between the techniques on subjective perception of warmth in the limb and depth of breathing. However, no differences were found in the subjects' heart rate and skin conductance. Other studies too showed significant difference in many different relaxation techniques in reducing anxiety level such as in dental fear patients (Lahmann et al., 2008), eating syndrome patients (Pawlow et al., 2003) and among post coronary bypass graft surgery underwent rehabilitation care (Dehdari et al., 2009). Mackereth et al. (2009) found a combination of reflexology and relaxation therapy significantly reduced anxiety subscale in General Health Questionnaire (GHQ-28) and State-Anxiety Inventory Scale among multiple sclerosis patients. The combination of relaxation techniques and guided imagery was found more effective in reducing level of anxiety in dental fear patients (Berggren et al., 2000) and among breast cancer patients using anxiety-subscale of Hospital Anxiety Depression Scale (HADS) (León-Pizarro et al., 2007). The effectiveness of the relaxation therapy to reduce the level of anxiety could be due to relaxation for the stimulation of parasympathetic activity that caused decreased blood pressure, heart rate, muscle tension, and rate of breathing and perceived exertion, as well as feelings of being calm and in control (Payne, 2000).

The Rationale

Relaxation is highly beneficial if practiced routinely in everyday life (George et. al. 2000; Peseatello et al. 2002; and Ranjbar et al. 2007). It techniques are widely used by sportspersons to reduce anxiety and cope with stress-related problems. Relaxation is achieved in several ways but most commonly practiced strategies in the clinical

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Table- 2

Adjusted Post Test Means and Difference between Means of PMR and Control Group of Selected Psychophysical Variables

Psychophysical Variables		PMR Group	Control Group	Mean Difference	Critical Difference
EMRPE	Post--Test Means	5.46	6.88	- 1.42*	0.12
BCTRPE	Post-Test Means	5.55	7.91	- 2.36*	0.15
EMHR	Post-Test Means	52.74	61.64	- 8.85*	0.92
BCTHR	Post-Test Means	79.45	87.05	- 7.6*	072

*Significant at 0.05 level.

Table-2 indicates that the 4-week early preparatory phase progressive muscular relaxation training programme imparted to PMR group selected Trip cricketers on psychophysical parameters i.e., early morning rating of perceived exertion (EMRPE), before cricket training rating of perceived exertion (BCTRPE), early morning heart rate (EMHR), and before cricket training heart rate (BCTHR) selected as dependent variables were found to be statistically significant in comparison to control group B.

The graphical representation of the paired adjusted final means of PMR and control group for early morning rating of perceived exertion (EMRPE), before cricket training rating of perceived exertion (BCTRPE), early morning heart rate (EMHR), and before cricket training heart rate (BCTHR) are presented in figures (i.e.,1.0; 1.1; 1.2; and 1.3).

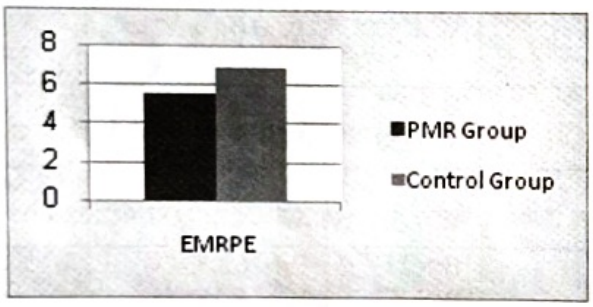

Figure 1.0 : Graphical Representation of Adjusted Post Test Mean Differences on EMRPE among Selected PMR Group and Control Group

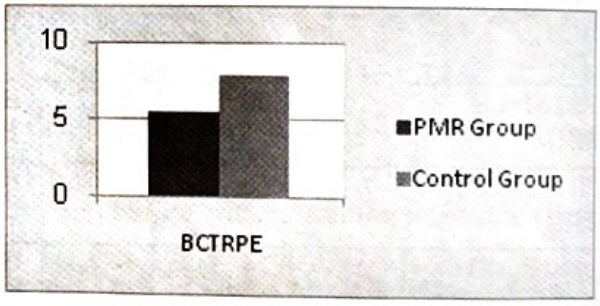

Figure 1.1 : Graphical Representation of Adjusted Post Test Mean Differences on BCTRPE among Selected PMR Group and Control Group

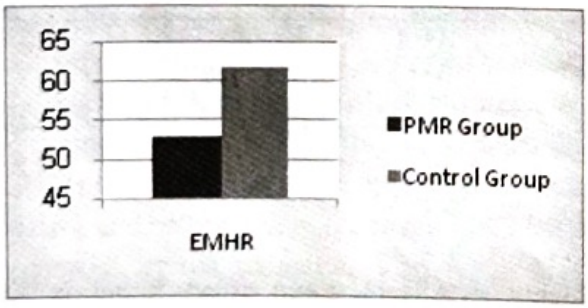

Figure 1.2 : Graphical Representation of Adjusted Post Test Mean Differences on EMHR among Selected PMR Group and Control Group

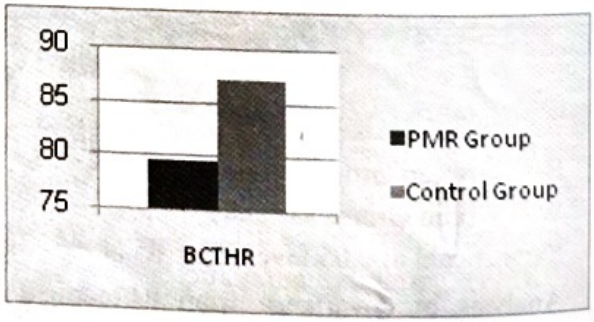

Figure 1.3 : Graphical Representation of Adjusted Post Test Mean Differences on BCTHR among Selected PMR Group and Control Group

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The facts could be the reason for highly significant group differences results found in PMR group all selected psychophysical variables as compared to control group, as in the PMRTP cricketers practiced the prescribed progressive muscular relaxation training programme for 4 weeks (i.e., 4 days a week, 25–40 minutes session before the cricketing training practice in the morning time) during early preparatory phase (EPP) at S. C. Indoor Stadium to improve selected psychophysical parameters i.e., early morning rating of perceived exertion (EMRPE), before cricket training rating of perceived exertion (BCTRPE), early morning heart rate (EMHR), and before cricket training heart rate (BCTHR). In this PMRTP, the training session duration was increased progressively after one week (such as 1st – 25 minutes 2nd – 30 minutes 3rd – 35 minutes & 4th – 40 minutes week respectively). However, during the late preparatory phase (LPP) of 4 weeks, the control group underwent their general training and regular cricket practice only as scheduled by Tripura Cricket Association and no treatment was assigned to them. Nuray et al. (2012) investigated the effect of PMRT on fatigue and sleep quality in patients with MS and this study aligns with those findings i.e. PMRT helps in fatigue and sleep quality in patients with MS. It is also reported in the literature that carefully and regularly applied exercise is one of the methods used in coping with fatigue (Krupp, 2004 and Costello et al. 2003) PMRT used as one of the non-pharmacological approaches to control fatigue in patients with MS yielded positive results, (Lisak, 2001 and Bakshi, 2003) and 5–20-minute PMRT sessions were as effective as 1 hour of sleep in preserving individuals' physical energy (Jeferson,1998). Kessel et al. (2008) proved that relaxation exercises and cognitive behavioral treatment reduced fatigue in patients with MS at the end of 8 weeks of treatment sessions. Sutherland et al. (2005) also reported that relaxation education resulted in a decrease in fatigue levels in MS patients. Nickel et el. (2012) too indicated similar findings i.e. PMR appears to be an effective method to improve blood pressure, lung parameters and heart rate, and to decrease anger levels, thus enhancing health-related quality of life in pregnant women with bronchial asthma. Shinde et al. (2013) showed that a cost-effective, group program in a "real-world" setting can result in clinically significant benefits for patients with hypertension. However, Jacobson's progressive muscular relaxation may be used as an adjunct to conventional physiotherapy as an antihypertensive treatment results in better control of blood pressure & reduces heart rate. Another reason could be due to the fact that the PMR group underwent a qualitative relaxing and soothing regime in a structured set-up as prescribed 4 weeks of PMRTP by the investigator in comparison to non-structured set-up used by the control group owing to their techniques with reference to the place of training during late preparatory phase (LPP).

Conclusion

Based on the findings of this study, it was concluded that progressive muscular relaxation training is an effective training tool to improve and manage women cricketer's psychophysical variables i.e., rating of perceived exertion and heart rate targeting their professional lifestyle stress.

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Comparison of Pre-competition Anxiety between Male and Female Volleyball Players

K.M. Va

K.S. Gurjar**

Abstract

The purpose of the t study was to compare the pre-competition anxiety between inter-university level male and female volleyball players. The sample consisted of 30 volleyball players comprising top four teams of north zone Inter university competition. Rainer Martens', pre-competition anxiety questionnaire (SCAT) was used to collect data. Mean, SD and t-test were used to analyse data. The result showed that male and female Volleyball players differ significantly on their pre-competition anxiety - females found more anxious (M=20.93) than males (M=16.73) 0.05 level of significance.

Key words: *Anxiety, Pre-competition, Comparison.*

Introduction

Modern sports has become a very complex behavioural issue as winning and excellence are serious concerns of all athletes. According to de Garay et al. (1974) only "genetic endowment, generally good environment and highly specialized training" can produce an Olympic champion athlete. Added to it is psychological skill training. Anxiety is one of the most common deterrents of good performance. At worst the effect of anxiety gets the athlete so tied up in knots that he is frozen in fear. At best anxiety subtly impairs performance by distracting attention. Anxiety is a universal phenomenon. 'There is hardly any situation or any aspect of life which is not influenced by it. Emotional instability is the greatest outcome of increased anxiety at school, at workplace, at home and on the playfield. One can escape anxiety nor can avoid it.' (Kamlesh, 2011).

Anxiety may be positive motivation force or it may interfere with successful athletic performances. As a positive motivating force it can be instrumental in motivating the athlete to work harder to find new and better ways to improve performances and to help set goals. As a negative factor anxiety may interfere with productive as well as constructive thinking of the athlete, his athletic skills and his self-confidence. Athletes may attempt to handle anxiety by denying the need to work hard. This can lead to development of poor work habits or athletic technique. These often lead to failure and, in turn, lack of confidence and increased anxiety. The over-anxious individual has a high level of cerebral and emotional activity with neuromuscular tension that may eventually lead the individual to the exhaustion stage and perhaps to psychosomatic disorders.

The effect of anxiety on performance depends directly on type of task considered. In most cases the heightened arousal state has been found to facilitate simple performance such as fingers tapping, eyelids, and conditioning and verbal memory task. On the other hand, as anxiety reaches a certain level, a breakdown of psychological and physiological integrative mechanism is often seen to occurred, resulting is less efficient performance is more complex task. Anxiety plays a paramount role in sports. It is the challenge in sports participation which produces anxiety. The way an athlete handles his anxiety determines how successful he would be. Anxiety may be a positive motivating force or it may interfere with successful performance in sports events. The degree of anxiety also varies with a number of different conditions. Anxiety is likely to be greater in higher competitive sports than in relatively non competitive sports, because in the competitive sports, participants are expected to win a great demands are made up on then to succeed.

The purpose of the study was to compare the pre-competition anxiety level between male and female inter-university volleyball players. The idea was to provide information to the coaches as how pre-competition anxiety among male and female volleyball players was related to their performance in the interuniversity competition so that they can better understand the player's behabiour during the competition.

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Methodology

The sample consisted of 30 male and female volleyball players of North Zone Inter University teams representing four different universities. The subjects were selected from top four teams of North Zone Inter University. Their age ranged between 19-25 years. For data collection Reiner Martins' Sports Competition Anxiety Test (SCAT) Questionnaire was administered to the subjects. The test has been globally used for measuring anxiety related to sports situations in different contexts on all kinds of athletic samples. The test is reliable and valid. The pre-competition anxiety questionnaire has 15 items out of which 5 are spurious questions, added to the questionnaire to diminish response bias towards actual test items. These 5 questions were not scored. The subjects were instructed to respond to each item according to how they generally felt at the time of competition.

Every subject had to choose one of the three possible responses i.e. Hardly 1, Sometimes 2, and Often 3. The 10 test items, which were taken for scoring purpose, were 2,3,5,6,8,9,11,12,14 and 15.The remaining items i.e. spurious items, which were not scored out, were 1,4,7,10,and 13.

The investigator ensures that the subjects responded to every item and there was no question left unanswered when he scrutinized the completed questionnaire. The items 2,3,5,6,8,9,11,12,14 and 15 were worded in such a manner that they scored accordingly to the following key:

Score	Response
1	Hardly ever
2	Sometimes
3	Often

In case of items 6 and 11 scoring was done in reverse order as given below:

Score	Response
1	Often
2	Sometimes
3	Hardly ever

However spurious questions i.e. 1,4,7,10 and 13 were not scored out as suggested by the author of the SCAT. Scores obtained by each subjects on each statement were added up which represented one's total score on pre-competition anxiety. Scores obtained on anxiety questionnaire by subjects of various inter universities were added separately and score sheets evaluated in accordance with the instruction laid down in the manual of the test. The data collected were analysed by using raw scores and ANOVA test at 0.05level of significance.

Result and Discussion

Results of the study in the form of descriptive and comparative statistics are shown in Table -1.

Table- 1

Significance of Mean Difference in Pre-competition Anxiety between Male and Female of Interuniversity Volleyball Players

Group	Mean	S.D.	D.M.	S.E.	Obtained 't' Value
Male Female	16.73 20.93	3.85 1.73	4.2	1.09	3.85*

N=30, *Level of Significance = 0.05 $Tab_{0.05}$ 't'=2.131

From the table-1, it is evident that female volleyball players are higher in the level of pre-competition anxiety than their male counterparts as the obtained t value of 3.85 is significant at 0.05 level and greater than tabulated t- value 2.13. This makes the investigators conclude that the pre-competition anxiety between male and female differs significantly with male players shown better placed. These results are not much different from common observation in human routine life.

Conclusions

Within the limitation of the study it was concluded that male and females significantly differ in the pre-competition anxiety, with females showing higher anxiety level.

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An Investigation on Visual Search Strategies and Anticipation in Male Field Hockey Players with different Expertise Levels

Vahid Rouhollahi* Mansoorehossadat Rozan* Akhil Mehrotra* Dilip Kumar Dureha*

Abstract

The study was set up to assess visual search strategies and anticipation as two phases of cognitive process and also role of experience in male field hockey players with different expertise levels. 60 male field hockey players were selected randomly and divided into two different expertise levels. A general information questionnaire and a decision-making quality questionnaire were used to collect the requisite data. Findings of the present study revealed that, there was a significant difference between two levels of experience with reference to visual search strategies and anticipation process. A significant relationship was also found between visual search strategies and anticipation with regards to different expertise levels.

***Key words** : Visual search strategies, Anticipation, Expertise levels, Field hockey.*

Introduction

Along with well-trained physiological and technical attributes, athletes also require certain cognitive characteristics (French and Thomas, 1987; Starkes, 1987; Williams etal., 1993; Helsen and Starkes, 1999; Nougier and Rossi, 1999). This certainly applies to players of invasive games, in which they compete at the same field of play against their opponents. Invasive games are time-oriented and can be subcategorized into goal-throwing (e.g. basketball), try scoring (e.g., rugby), and goal striking games (e.g., hockey). Another characteristic of the invasive game players is that they constantly need to adapt to opposition by punctual adaptation to new play configurations and to the circulation of the ball (Gréhaigneand Godbout, 1995). In this type of games, players have to deal with a complex and rapidly changing environment while invading the opposing team's area of the field to score (Almond,1986; Williams, 2000; Hughes and Bartlett, 2002).

Behavioral studies show that high level experience athletes exhibit high execution accuracy and excellent performance in anticipation of rapid and complex motor tasks. In particular, high level experience athletes are able to make decisions within limited time when the game is in progress (Allard et al.,1980; Starkes and Allard, 1983; Starkes, 1987; Bard andGoulet, 1994; Williams et al., 1999).

The difference in action-anticipation between elite athletes and novices may result from better visual perception on the part of the elite athletes. Previous studies revealed that the methods elite athletes and novices used to extract visual information for anticipation are different (Abernethy, 1990,1991; Williams & Davids, 1998; Abernethy et al., 2005) and that elite athletes might extract kinematic information of observed domain-specific actions to predict their future course more efficiently than novices (Ward and Williams, 2003;Overney et al., 2008). In this regard, many studies focused on the different contribution of motor and visual expertise in the perceptual advantage of elite athletes

Action anticipation is highly relevant to motor skills. Visual perception is an active process of locating and extracting visual information from the environment and integrating them with other sensory inputs. In addition, various cognitive factors including past experience, motivation and development are involved in incorporating all the integrated information in visual perception. (Wu, Y. et al. 2013).

The study focused on the relationship between visual search strategies and anticipation as two of different phases of cognitive process and also role of experience on visual search strategies and anticipation to find out that visual perception is involved in the anticipation in male field hockey players with considering their expertise levels.

Methodology

Sixty male field hockey players (Mean age = 19.65 years; SD =2.14) participated in this study. They had

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playing experience (Mean=7.63 years; SD=2.55) in field hockey and their playing position was goalie, forward, fullback or midfielder and they were playing in fix position at least for two years.

As per research objectives, general information questionnaire (individual) required by the study included demographic information and also decision-making quality questionnaire were used. Each item in the questionnaire is assigned a score ranging from 1 (very poor) to 5 (excellent) based on self-rated on-field performance of the players. This questionnaire was loosely based on an inventory used by Elferink-Gemseret al. (2004). Internal consistency and test-retest measure were used to found out the reliability of the questionnaire that each one was at acceptable level. Validity of this questionnaire was determined by helping some of expert coaches of field hockey of India.

Two questionnaires were distributed among the participants who were divided into two groups according to their playing experience ($\geq$7 years and $\leq$ 8 years playing experience). The participants were asked to answer the questions as they are, not as they think or desire to be. All completed questionnaires were collected after a few days.

Results and Discussion

The results of the study are depicted in tables1 and 2. Visual search strategies scores showed significance difference between two levels of expertise, $t(58) = 2.50$; $p<.05$.The mean of visual search strategies scores in less experience group was (Mean=3.09; SD=.75) and mean of high experience group was (Mean=3.51; SD=.55). Similarly, a significant difference was found between two level of expertise in relation to anticipation process $t(58) = 3.63$; $p<.05$. The mean of anticipation score in less experienced group was (Mean=2.92; SD=.75) and mean of high experience group was (Mean=3.53; SD=.55). The results appear in table1.

Table - 1

Comparison of Visual Search Strategies and Anticipation between Different Expertise Levels

Variables	t	df	Sig(2-tailed)	Mean difference	Std. Error Difference
Visual Search Strategies	2.50	58	.016*	.41951	.16828
Anticipation	3.63	58	.001*	.60036	.16517

* Significant at the 0.05 level

The findings of this study indicate that, there were a strong, positive and significant correlation between visual search strategies and anticipation $r(28) = .84$; $p<0.01$ in less experienced group and also between visual search strategies and anticipation $r(32) = .59$; $p<0.01$ in group with higher experience. The results show in table - 2.

Table - 2

Relationship between Visual Search Strategies and Anticipation in Different Experience Levels

Levels of Experience	N	Pearson Correlation (r) between visual search strategies& anticipation	Sig(2-tailed)
Low Experience	28	.84	.000*
High Experience	32	.59	.001*

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

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The results of the study were on expected lines i.e. the athletes with more experience compared to less experience exhibited better scores in visual search strategies and anticipation. The results were consistent with previous studies (Abernethy, 1990, 1991; Williams & Davids, 1998; Abernethy et al.,2005; Urgesi et al., 2012) and suggested that expert athletes have higher abilities in visual search strategies and anticipation; therefore it can be stated that along with the increase level of experience, visual search strategies and anticipation will improve.

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Effect of Medium of Instruction on Self-Efficacy: A Study of PMT/PET Course Aspirants

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Nehalata Singh**

Abstract

With 120 respondents as subjects the investigators examined the effect of medium of instruction (Hindi and English) among PMT/PET course aspirants on Self efficacy. The results revealed the interaction effect to be significant for self-efficacy. By and large, the results seem to be representing higher level of self-efficacy among engineering students than the medical students. In addition, results of mediums of instruction clearly indicate higher level of self-efficacy among English-instructed students as compared to Hindi medium students.

Key words : *Medium of Instruction, PMT/PET Course Aspirants and Self-Efficacy.*

Introduction

Self-efficacy is commonly defined as *the belief or confidence in personal capabilities to achieve a goal* or to be able to perform a particular activity. It refers to students' self-confidence which reflects how a student performs vis-a-vis their commitments. Students having higher self-efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. Such students are likely to put in high degree of effort to complete their specific tasks. They don't blame external factors for their failure and feel that the course obstructions are within their control. They recover quickly from setbacks, overcome setbacks and achieve personal goals successfully. Contrarily, students having low self-efficacy can't set their goals. They are not successful, and are less likely to make a concerted, extended effort and may consider challenging tasks as threats. 'These students with low self-efficacy have low aspirations which may result in disappointing academic performance which becomes part of a self fulfilling feedback cycle.' (Bandura et al., 1997; Margolis et al., 2006).

However, having high level of self-efficacy does not guarantee that they would be successful; it only means that how far they have strong and full of confidence. Students believe that they have power and skills to do tasks well. They may believe that other factors may help them succeed. When faced with difficulties, they are likely to put in hard work and in the end achieve goals.

Possibly the following ingredients demonstrate self-efficacy:

- The kind of activities selected by students
- The degree of efforts they put in to fulfil commitments
- Persistence in the face of difficulties, and
- The difficulty of the goals set.

Role of Self-Efficacy

Virtually all people who aspire to achieve, identify the goals and want to accomplish them. However, most people also realize that putting their plans into action for complete success is not quite so simple. Bandura et al. (1997) found that self-efficacy plays a major role behind the way goals, tasks and challenges are approached by individuals.

Where a Stronger Ssense of Self-efficacy Prevails :

- People have the ability to face the challenging problems as tasks to be mastered.
- In the task, they participate, and have deeper interest in the activities leading to accomplishment.
- They have a strong sense of commitment as regards interest and activities.
- They can recover quickly from setbacks and disappointments.

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Where Weaker Sense of Self-efficacy is Present:

- People avoid taking challenging tasks.
- They believe that difficult tasks and situations are beyond their capabilities.
- They only focus on personal failings and negative outcomes.
- They quickly lose confidence in their personal abilities.

The beliefs in one's self-efficacy begins to form in early childhood. However, the self-efficacy growth does not end with the time; it continues to evolve across youth as people acquire new skills, experiences and understanding. Notwithstanding various self-efficacy sources, teachers often use at least four important strategies to improve self efficacy of their students: (a) develop a strong sense of efficacy through mastery experiences (in Bandura's view this is the most robust source of self efficacy); (b) vicarious experiences i.e. observing other people succeed at a task; (c) verbal persuasion (make people believe they have the skills and power to complete their tasks successfully); and (d) psychological responses (our moods, emotional states, physical reactions and stress level play role in increasing or decreasing the level of self-efficacy).

Generally, it has been found that self-efficacy begins to show itself in students as they reach high school. Student's family background, medium of study, environment of classroom, etc, too have impact on the level of self-efficacy. Their development, their achievements, their way of thinking etc has long term impact on children in high school, has been demonstrated (Jencks et al. 1970). Similarly, Mercy et al. (2003) found that the extent to which students have positive experiences and success in high school has important implications for their self-efficacy.

This study address the question: What is impact of medium of instructions and PMT/PET course aspirants on Self-Efficacy? It was hypothesized that the Hindi and English medium aspirants from different courses shall differ in the various aspects of self-efficacy.

Methodology

The sample of the study consisted of 120 12th class pass students who were preparing for entrance exam pre-training to medical and engineering degree. They were in the age range of 17-20 years and drawn from different institutes of Gorakhpur city. These subjects of the two groups (PMT/PET) were equally divided. Both groups were also divided on the basis of medium of instruction. Table-1 presents the contribution of the groups.

Table - 1

The Distribution of the Sample

		Value Label	N
Medium	1	Hindi	60
	2	English	60
Course	1	PMT	60
	2	PET	60

The 10-item General Self-Efficacy Scale developed by Schwarzer, R., & Jerusalem, M. (1995) was used to assess the general sense of perceived self-efficacy. Each item has to be rated on four alternative responses, namely; 'Not at all true', 'hardly true', 'moderately true' and 'exactly true'. Add up all responses to a sum score. The range is from 10 to 40 points.

As per procedure, rapport was established with the students and personal information was recorded using a personal data sheet. The data sheet has ten questions with 5-point rating scale. Respondents were briefed about the purpose of the study and were assured about the privacy of their responses. After taking their consent they were given the data sheet and instructions.

Result and Discussion

The descriptive statistics for the scores obtained on the self-efficacy scale in the contexts of medium of instruction (Hindi and English) and PMT/PET course aspirants are shown in table-2. A close perusal of the mean scores revealed that there appeared appreciable degree of variation in the responses.

In order to examine the signification of differences between different groups, the raw scores were subjected to separate 2 X 2 factorial between group ANOVAs. Table-3

Table - 2

Mean Scores on the Measure of Self-efficacy reported by Medium of Instruction and Courses

Medium	Courses	Mean	Std. Deviation	N
Hindi	PMT	29.67	3.736	30
	PET	30.60	3.663	30
	Total	30.13	3.698	60
English	PMT	32.07	4.127	30
	PET	29.57	4.240	30
	Total	30.82	4.335	60
Total	PMT	30.87	4.086	60
	PET	30.08	3.963	60

The main effect of medium was not significant on self efficacy, F (1,116) = .90, P>0.05. Table 2 indicates that the mean scores of Hindi medium students (M=30.13) and students of English medium (M=30.82) was equally response on Self-efficacy.

Table - 3

Summaries of 2 X 2 Factorial ANOVAs performed on the Self-efficacy

Source	Sum of Squares	df	Mean Square	F
Medium	14.008	1	14.008	.898
Course	18.408	1	18.408	1.180
Medium * course	88.408	1	88.408	5.669**
Error	1809.100	116	15.596	

Note: **p<.01

Similarly, the main effect of courses was not significant for self-efficacy, F (1,116) = 1.180, P>0.05. As can be seen the means for medical students (M=30.87) and engineering students (M=30.08) were almost equal.

However, the interaction effect (medium and courses) was statistically significant F (1,116) =5.67, P>0.01. The graphical representation also represents higher level of self-efficacy in the Hindi medium engineering students (M=30.60) than the medical students (M=29.67). The Graph no. 1 clearly shows that the higher level of self-efficacy in English instructed medical students (M=32.07) as compared to engineering students (M=29.57) counterparts.

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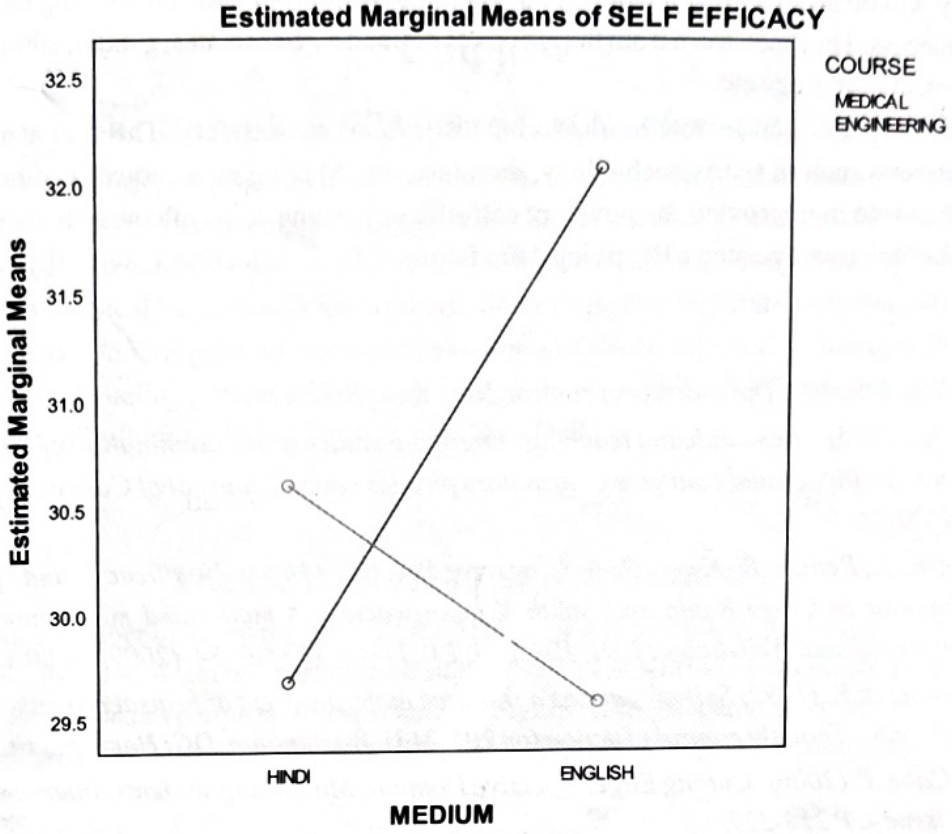

Figure 1: Mean Scores on the Self-efficacy as A Function of the Interaction Effect of Medium X Courses

The study shows that the level of self-efficacy is significantly different in the two different groups of the same age. It was found that the level of self-efficacy was better in English instructed students than Hindi instructed students. They have a belief in achieving their goals successfully. They have less doubt about their aim. They can recover quickly from their setbacks. They take challenges with confidence and complete takes successfully. Even the medical students appear to avoid taking any risk in completing their tasks.

The effect of medium of instruction on level of self-efficacy can be seen here. Two different types of medium have different levels of self-efficacy. Jencks et al. (1970) reported that students' development, their achievement, and their way of thinking, etc., starts in the 12th class and has long term impact on their performance in years to come. It is particularly interesting to note that teaching strategies used in the classroom do make a difference in student's self-efficacy. (Schwarzer & Hallum, 2008).

The study revealds that the type of learning environment and the way of teaching can improve self-efficacy in classroom (Bandura, et. al., 1994). A similar result was reported by Luszczynska, et. al., (2010) explaining the way instruction plays a major role in the performance of students. In other studies it is seen that in young adults, high level of self-efficacy is associated with better academic performance and positive health-related behaviours (Steptoe & Wardle, 2001; Phillips & Gully 1997).

Bandura has also pointed out that the type of learning environment and teaching method can improve self-efficacy in the classroom. Bandura concludes that cooperative learning strategies have the dual outcome of improving both self-efficacy and academic achievement. 'Cooperative learning structures in which students work together and help one other also tend to promote more positive self-evaluations of capability and higher academic attainments than do individualistic or competitive ones.

The suggestion here is that some pedagogic strategies can foster self-efficacy. Specific, short term goals can be set that challenge the students. They can also be helped to lay out a specific learning strategy and verbalize their plans, asked to complete their task, and note their progress and verbalize the next steps (Schunk & Pajares 2002).

Self-efficacy will be boosted, if students have a competitive environment surrounding them. Watching peer models may lead to success. They may learn from the groups as defined by classmates, gender, ethnicity, social circles, interests, achievement, clothing, age etc.

Student's interest plays a major role in improving his level of self-efficacy. The course material need to be aligned to student interests such as sports, technology, literature, etc. Making own choices is other important factor which has an important role in improving the power of self-efficacy. Some areas of course is required to be set that allow students to make their own decisions. By giving them frequent, focused feedback, self-efficacy get high place in their personality.

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Snippets

The Unbroken SPAI National Conference Chain

The SPAI caravan has been on the move ever since inception undeterred by the vicissitudes. While the *23rd National Conference of Sports Psychology* was organized at Department of Bachelor of Physical Education, Christ College, Irinjalkuda (Trissur), Kerala 29-31 January, 2013; the *24th National Conference of Sports Psychology* was held at Department of Physical Education, Vishvasbharti, Shanti Niketan, Bolepur (West Bengal) from 4 to 6 January, 2014. The *25th (the Silver Jubilee edition) National Conference of Sports Psychology* along with ICSP 2014 is being hosted jointly by Indira Gandhi Institute of Physical Education, Vikaspuri, New Delhi and Department of Physical Education, University of Delhi from 15 to 18 Oct, 2014 at New Delhi.

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The ISSP World Congress Connection

A respectable number of seven members of the SPAI (Dilip Dureha, Jitendra Mohan, Meena Sehgal, Anil R., Madhu Sudan, Jolly Roy and Anurene) participated in the ISSP 13th World Congress, Beijing, China , 21-25 July, 2013 and made presentations as per programme schedule. Significantly, all pending group membership fee for ISSP and ASPASP was cleared by the Secretary General, SPAI, ensuring an automatic group membership of the ASPASP.

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The 7th ASPASP Meeting, Tokyo

The 7th Asia South Pacific Association of Sport Psychology Congress at Tokyo, Japan from 7th -10th August 2014 was attended by ten SPAI members notably Dilip Dureha, Jayashree Acharya, Jolly Roy, Sushma Ghildiyal, Neetu Joshi, and others. Dilip Dureha, the Secretary General, SPAI attended the MC and GM meetings of the ASPASP and he was elected as the National Representative to the MC of the ASPASP. While Jsyashree gave a 90-minute workshop on "Vinyasa Yoga for Athletes - a Tool for Enhancing Physical Stability for Challenging Body and Mind to Move in New Ways", Jolly Roy also followed suit with two workshops. The ASPASP approved holding of their next Managing Council meeting in November, 2015 in BHU Varanasi India juxtaposing it with the International Congress of Sports Psychology-2015.

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Psychological Inputs (Mind Training) to Indian University Archers

For the first time, Punjabi University Sports Department, vested with the sole authority of preparing the All India Inter-university team for participation in World University Archery Championships in Poland in July, 2014, officially requested M.L. Kamlesh, SPAI Patron, to give the camping archers psychological backup from 5 to 28 June, 2014 at the PU campus. 13 spaced psycho-training sessions each of 1½ hour duration were taken during this period. The programme consisted of information, instruction and practice in attentional focusing, concentration, confidence building strategies, disciplining movements during competition, disciplining thought process, self talk, relaxation training in a group and individually where necessary. Substantial improvement in performance was witnessed at the final selection trials.

Two specimen comments from the archers selected for the World University Archery underscore the importance of psychological training.

I became double-minded for past one week for my game. There was some problem. But after attending your class I feel much better. I feel relax. I do the practice of Trataka. it is very good for me.

Trisha Deb*

What you told me has improved my shooting... as I practice the lessons given everyday. I used to get upset at a bad shot but now I have stopped doing that as instructed and I feel better. Earlier I used to talk much while shooting, now I am gradually giving up this bad habit to conserve energy.

Sukhbir Singh

Due to Visa denial the archery could not participate in the World University Tournament but ***Trisha Deb* later made to the National Archery teams for the 17th Asian Games at Incheon (Korea) and won individual Gold Medal in Recurve Bow Archery Competition.***

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Orientation Workshop for Newly Appointed Sport Psychologists

The Sports Authority of India through its academic centre the Netaji Subhas National Institute of Sports, Patiala officially approached M.L. Kamlesh to take up the onerous task of 3-day Orientation Workshop from 2 to 4 July, 2014 for the newly appointed (contractual) sports psychologists at the Sports Science Faculty. Later, the other sport scientists viz. nutritionist, anthropometry expert, sports medicine experts, etc., were also required to join the programme. As per directive of the competent authority two lectures of 1½ hour duration each and one 1½ hour duration practical training programme had to be given to the new comers.

Classroom Interaction :

1. Sport and Science Proximity
2. Introduction to Sport & Exercise Psychology
3. Psychological Preparation of Athletes
4. Psychological Skill Training - Matters that Matter
5. Developing Skills of a Sport Psychologist
6. Skills and Strategies of Developing Rapport with Sports Personnel

Practicals:

1. Getting to know and understand sport environment - a Field Orientation
2. Familiarizing with lab equipment and instruments
3. Techniques of Psychological Management - Individual and Team Interactions

Indian Journal of Sport Psychology

The *Indian Journal of Sports Psychology* is an official bi-annual journal of the Sports Psychology Association of India and is devoted exclusively to publishing original research reports and scholarly conceptual papers as well as reviews from learned authors in the field of sport & exercise psychology across the globe. The journal aims to serve as an inter-disciplinary forum for the research celebrities, scholars and scientists - young and experienced - from well-recognized disciplines like psychology, physiology, physical education, exercise and sport to interact among themselves and with sportspersons, exercisers, coaches and athletic trainers of all shades and express their views, ideas, concerns and problems freely and unreservedly with a view to (a) broaden the knowledge base of sport psychology; (b) encourage quality research in diverse contexts of sport and activity behaviour; and (c) facilitate application of the principles of psychology in the performance-enhancement of athletes at all rungs of sporting activity and athletic training.

Subscription Details

1. The annual subscription for *two issues* of the journal shall be as under:

Individual	Rs. 500/-
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The subscription is inclusive of postage charges.

The amount subscription in full per issue/annual must be sent well in advance before January and July, the DD drawn in favour of *Sports Psychology Association of India* payable at Varanasi.

2. All matters regarding subscription, receipt of the journal should be addressed to :

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3. The authors desirous of getting their papers published in the journal shall have to abide of the editorial policy of the Journal and Guidelines to the Contributors (given at end of this issue) and pay Rs. 500/- per paper as processing fee.

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