

To Examine the Relationship between Selected Variables of Psychological Skills Training Program among the Archery Performance of National Level Archery Players of Chandigarh India

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Abstract

Research scholar has selected the topic with the purpose to examine the relationship between selected variables of psychological skill training program on archery performance of National level archery players. For the purpose of present study, the random sampling method was used to select the archers as the subject. Keeping in view the purpose of the study, 07 National level archery players of Chandigarh were randomly selected, the age of subjects ranging between 15 > 30 years. All subjects participated in State, National, All India Inter University level Competition, and belong to Archery academy named "Guru ki Mehar" which is located in sector 39, Chandigarh. Standardized. Psychological skills assessment scale (PSAS), test the Arousal regulation, Goal setting, Imagery, Attention, Motivation, Self-Awareness and Self-Confidence of the Archers. The level of significance was set at 0.05 in order to check the significance of the calculated correlation. Results: The results showed that selected psychological skills training program variables namely Goal Setting between Self – Confidence were found ($r = .981^{**}$ ($p < 0.01$) which was positive relationship there was significant correlation at the 0.05 levels. Other hand side correlation between variable namely Arousal regulation with Goal Setting, Motivation, Attention, Imagery and Self – Awareness was found weak relationship ($p > 0.05$) there was not a significant correlation at the 0.05.

Key words: Psychological skills training program, Arousal regulation, Goal setting, Imagery, Attention, Motivation, Self-Awareness and Self-Confidence.

1. Introduction

Psychology touches almost every aspect of our lives. Psychology has assumed an increasingly important role in solving human problems. Knowledge of Psychology is helpful events to people who do not plan to pursue it as a carrier. Studying Psychology provides insight into why people behave as they do. It also helps

us better understanding our own thoughts, feelings behavior and attitudes and hopefully, it can strengthen our appreciation of and tolerance for the wide differences diverse and fascinating field-one that delves into virtually every aspects of the human behavior.

Psychology is a science that systematically studies the observable human behavior and its relation with the unseen mental process which go on inside the organism as well as external events in the environment. The primary aim of psychology is to find the laws which relate Behavior to situation, conditions and other behaviors.

1.1 Sports psychology

The word psychology refers to the study of human behavior and the sports psychology that deals with behavior of the athletes and teams engaged in competitive sports.

Sports psychology is that branch of psychology which is intimately connect with human behavior on the play field both under practice and competitive situations, with a view to bring about quality improvement in performance and maintain the same even during the stress of competition. It is the study of human behavior in sports settings with an emphasis on the mental aspects of behavior.

Sports psychology plays the essential role to bring about change in a person's or players behavior. It has often been observed that sportspersons work hard day and night for sports competition, they practice sports continuously so that they get first place in the respective Games. But as soon as the sports competition starts coming close, suddenly mental tension arise in them. Due to suffering from this mental disorder, the player starts to commit mistakes continuously, the result of which is all their hard work gets into the soil. In sports, the concentration is disturbed due to suffering from mental illness and they cannot perform high level during the sports competition. In this situation sports psychology is the only option that can relieve a player's mental stress, and find out what was the reason that caused mental stress is arrived in the player.

Sports psychology, in words of Singer, "encompasses research counseling/clinical, education, and practical/programmatic activities associated with understanding, explaining and influencing selected behavior of individual and group involved in high level activities". Sports psychology is striving hard to investigate athletic performance, to stability it, and to seeking on appropriate balance between psychological and psychological dimensions of performance.

1.2 Archery at the Olympics

Archery was first included in the Olympic Games in 1900. It was also featured a programmed in 1904, 1908 and 1920 before a 52-year hiatus until 1972 when it returned. Has remained an Olympic Programmed even since, with competition in men's and women's Individual & Team, reserve Archery.

1.3 Psychological skills training

PST is an individually designed combination of methods selected to attain psychological skills needs (Gill D. 2000). There is no single idyllic PST package; each program must be individualized based on psychological state of the individual and the sports. To assemble a successful PST Program, it is important to distinguish PST Skills and PST methods.

Psychological skills training (PST) refers to consistent practice of mental or psychological skills. Coaches and athletes know that physical skills need to be regularly practiced to become better. Similar to physical skills, psychological skills such as maintaining concentration and regulating arousal levels also need to be practiced.

1.4 Important of Psychological skill training

All sport and exercise participants fall victim to mistakes and mental letdowns.

Mental and emotional components often overshadow the purely physical and technical aspects of the performance. To overcome this, one must become equally fit both mentally and physically; an individual's success or failure in the sport and exercise arena lies in the ability of the individual to practice both physical and mental skills

2. Materials and Method

2.1 Participants

For the purpose of present experiment study, the random sampling method was used to select the archers as the subject. With the help of normal probability curve seven subjects were selected those who lies below the normal distribution. The age of subject between 15>30 years old and the training age was above then two years. All subjects participated in State, National (school, junior, senior), and All India Inter University level Competition. All archers belong to Archery academy named "Guru ki Mehar" which is located in sector 39, Chandigarh.

2.2 Selection of Variables

To assess the significant contribution of PST towards Archery Performance, by means of various mental skills preparation Methods providing training in Relaxation, Imagery, concentration, and Goal setting are the important factor. (Bennett and Pravitz, 1982). and (Unestahl, 1983) In the Present Study the following Psychological Skills-Relaxation, Imagery, Attention, Self-Confident, Self-talk and goal setting were used for the purpose of the study. Program includes the considerations, such as educational session, skill Development, Application and Evaluation.

The Table 1. Show that the selected variables and abbreviation of the present study. The selected abbreviations such as AR stand for Arousal Regulation, GS stand for Goal Setting, IM stand for Imagery, AT stand for Attention, MT stand for Motivation,

SA stand for Self – Awareness, Sc stand for Self – Confidence.

Table 1 Selected Variables of the study and abbreviations

S. No.	Selected Variables	Abbreviations
1.	Arousal Regulation	AR
2.	Goal Settings	GS
3.	Imagery	IM
4.	Attention	AT
5.	Motivation	MT
6.	Self-Awareness	SA
7.	Self - Confidence	SC

2.3 Criterion Measures

Psychological skills assessment scale was developed and standardized by Sharma and Sharma (2012) to test psychological skills among archers. Psychological skills assessment scale (PSAS), test the Arousal regulation, goal setting, Imagery, Attention, Motivation, Self-Awareness, Self-Confidence of the Archers.

2.4 Collection of Data

In the present study data was collected as per the schedule, Archers, selected as the subjects for the purpose of the study, from "GURU KI MEHAR" Academy Sector - 39, Chandigarh, India first of all the selected subjects were given Psychological Skills Training for 3 weeks, and after that which all the selected players were given Standardized Psychological Skills Training Questionnaire. All the selected subjects carefully readout all question from Questionnaire booklet in detailed and filled it. Thereafter Questionnaire booklets are collected. Scores were collected to evaluate correlation between the selected variables.

3. Statistical Techniques

Following statistical techniques were applied for analysis

1. Descriptive statistics (Mean and Standard Deviation).
2. Pearson product moments correlation for obtaining relationship.
3. Correlation is significant at the 0.05 level (2-tailed).

Table 2 Value of Pearson Correlation

Pearson Correlation (r)	Rating
r = 0.80 to 1.0	Very strong
r = 0.60 to 0.79	Strong
r = 0.40 to 0.59	Moderate
r = 0.20 to 0.39	Weak
r = 0.00 to 0.19	Very weak

Table 2. shows the Pearson product moment correlation coefficient values by which the correlation between variables was determined.

If the values are $r = 0.80 \geq 1.0$, that's means there are very strong correlation between the variables. Similarly, the values are in between $r = 0.60 \geq 0.79$ which means strong correlation. The values are in between $r = 0.40 \geq 0.59$, which means moderate correlation between variables. The values are in between $r = 0.20 \geq 0.39$, which means weak correlation. The values are in between $0.00 \geq 0.19$ which means there was very weak correlation between the variables.

According to the Table 3. the selected variable namely Arousal the mean value and SD was found 16.000 ± 3.2146 , variable namely Goal Setting the mean and SD value were 10.429 ± 2.0702 , variable namely Imagery the mean and SD were 16.714 ± 1.7995 , variable namely Attention the mean and SD value were 12.429 ± 3.4572 , variable namely Motivation the mean and SD value were found 17.486 ± 1.2724 , variable namely Self

– Awareness the mean value and Sd were found 19.286 ± 2.0587 similarly Self – Confidence mean and SD value were 13.286 ± 3.9881 .

According to Table 4 the correlation between variable Arousal with Goal setting was found ($r = .576, \rho > 0.05$). The result is specified that which was moderate relationship but was not a significant correlation at 0.05. Correlation between variable Arousal with Imagery was found ($r = -.317, \rho > 0.05$). The result is specified that which was negative weak relationship and was not a significant correlation at 0.05. Correlation between variable Arousal with Attention was found ($r = .375, \rho > 0.05$). The result is specified that which was weak relationship and not a significant correlation at 0.05. Correlation between variable Arousal with Motivation was found ($r = .081, \rho > 0.05$). The result is specified that which was very weak relationship and correlation is not significant at 0.05. Correlation between variables Arousal with Self – Awareness was found ($r = .277, \rho > 0.05$). The result is specified that which was weak relationship and not a significant correlation at 0.05 level. Correlation between variable Arousal with Self – Confidence was found ($r = .546, \rho > 0.05$). The result is specified that which was moderate relationship and was not a significant correlation at 0.05 level as per given table 2 value of Pearson Correlation.

According table 5. the result of present study showed that the correlation between variables Goal setting with Arousal regulation was found ($r = .576, \rho > 0.05$). The result is specified that which was moderate relationship and was not significant at 0.05. Correlation between variables Goal setting with Imagery was found ($r = -.677, \rho > 0.05$). The result is specified that which was negative strong relationship and was not a significant correlation at 0.05 level. The correlation between variables Goal setting with Attention was found ($r = .645, \rho > 0.05$). The result is specified that which was strong relationship and was not a significant

correlation at 0.05 level. Similarly, correlation between variable Goal setting with Motivation were found ($r = -.271, p >$

0.05). The result is specified that which was negative weak relationship and was not a significant at the 0.05.

Table 3 Distributive Statistics of Selected Variables of Psychological Skills Training Program

S. No.	Variables	Minimum	Maximum	Mean	Std. Deviation
1.	Arousal	12.0	20.0	16.000	3.2146
2.	Goal Settings	8.0	13.0	10.429	2.0702
3.	Imagery	14.0	19.0	16.714	1.7995
4.	Attention	5.0	15.0	12.429	3.4572
5.	Motivation	16.0	20.0	17.486	1.2724
6.	Self – Awareness	17.0	23.0	19.286	2.0587
7.	Self - Confidence	5.0	17.0	13.286	3.9881

$N = 7$

Table 4 Correlation between Selected Variables of Psychological Skills Training Program

S. No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Arousal	AR vs GS	.576	.176	Moderate
		AR vs IM	-.317	.489	Weak
		AR vs AT	.375	.407	Weak
		AR vs MT	.081	.862	Weak
		AR vs SA	.277	.548	Weak
		AR vs SC	.546	.205	Moderate

* Correlation is significant at the 0.05 level (2-tailed)

Table 5 Correlation between Selected Variables of Psychological Skills Training Program

S. No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Goal Setting	GS vs AR	.576	.176	Moderate
		GS vs IM	-.677	.094	Strong
		GS vs AT	.645	.117	Strong
		GS vs MT	-.271	.556	Weak
		GS vs SA	.631	.128	Strong
		GS vs SC	.709	0.74	Strong

* Correlation is significant at the 0.05 level (2-tailed)

Table 6 Correlation between Selected Variables of Psychological Skills Training Program

S. No	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Imagery	IM vs AR	-.317	.489	Weak
		IM vs GS	-.677	.094	Strong
		IM vs AT	-.031	.948	Very Weak
		IM vs MT	-.374	.408	Weak
		IM vs SA	-.829	.021	Very Strong
		IM vs SC	-.103	.826	Very Weak

* Correlation is significant at the 0.05 level (2-tailed)

Table 7 Correlation between Selected Variables of Psychological Skills Training Program

S.No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Attention	AT vs AR	.375	.407	Weak
		AT vs GS	.645	.117	Strong
		AT vs IM	-.031	.948	Very Weak
		AT vs MT	-.731	.062	Strong
		AT vs SA	.331	.468	Weak
		AT vs SC	.981	.000	Very Strong

* Correlation is significant at the 0.05 level (2-tailed)

Table 8 Correlation between Selected Variables of Psychological Skills Training Program

S.No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Motivation	MT vs AR	.081	.862	Weak
		MT vs GS	-.271	.556	Strong
		MT vs IM	-.374	.408	Very Weak
		MT vs AT	-.731	.062	Strong
		MT vs SA	.264	.568	Weak
		MT vs SC	-.652	.112	Very Strong

* Correlation is significant at the 0.05 level (2-tailed)

The correlation between variables Goal setting with Self – Awareness were found ($r = .631$, $\rho > 0.05$). The result is specified that which was strong relationship but was not a significant correlation at the

0.05. Correlation between Goal setting with Self – Confidence were found ($r = .709$, $\rho > 0.05$). The result is specified that which was strong relationship and was not a significant correlation at 0.05 level.

According to table 6. the result of present study showed that the correlation between variables Imagery with Arousal regulation was found ($r = -.317, \rho > 0.05$). The result is specified that which was negative weak relationship and there was not a significant correlation at 0.05. The correlation between variables Imagery with Goal Setting was found ($r = -.677, \rho > 0.05$). The result specified that which was negative strong relationship was and there was not a significant correlation at the level 0.05. Similarly, the correlation between Imagery with Attention was found ($r = -.031, \rho > 0.05$). The result is specified that which was negative very weak relationship and there was not a significant correlation at 0.05. Correlation between variables Imagery with Motivation was found ($r = -.374, \rho > 0.05$). The result is specified that which was negative weak relationship and was not a significant correlation at 0.05. Correlation Imagery and Self – Awareness was found ($r = -.829^*, \rho < 0.05$). The result is specified that which was negative very strong relationship and there was a significant correlation at 0.05 level. Correlation between variables Imagery with Self – Confidence was found ($r = -.103, \rho > 0.05$). The result is specified that which was very weak negative relationship and was not a significant correlation at 0.05.

According to the table 7 the correlation between variable Attention with Arousal regulation was found ($r = .375, \rho > 0.05$). The result is specified that which was weak relationship and there was not a significant correlation at the 0.05 level. Correlation between variable Attention with Goal Setting was found ($r = .645, \rho > 0.05$). The result is specified that which was strong relationship and there was not a significant correlation at 0.05. Similarly, the correlation between variables Attention with Imagery was found ($r = -.031, \rho > 0.05$). The result is specified that which was very weak negative relationship and there was not a significant correlation at the 0.05. Correlation between variables Attention with Motivation was found ($r = -.731, \rho >$

0.05). The result is specified that which was strong negative relationship and there was not a significant correlation at the 0.05. Correlation between variables Attention with Self – Awareness was found ($r = .331, \rho > 0.05$). The result is specified that which was weak relationship and there was not a significant correlation at the 0.05 level. Correlation between variables Attention with Self – Confidence was found ($r = .981^{**}, \rho < 0.01$). The result is specified that which was very strong positive relationship and there was a significant correlation at the 0.05 level.

According to the table 8. the correlation between variables Motivation with Arousal Regulation was found ($r = .081, \rho > 0.05$). The result is specified that which was very weak relationship and there was not a significant correlation at the 0.05 level. The correlation between variables Motivation with Goal Setting was found ($r = -.271, \rho > 0.05$). The result is specified that which was weak negative relationship and there were not a significant at the 0.05. The correlation between variables Motivation with Imagery was found ($r = -.374, \rho > 0.05$). The result is specified that which was weak negative relationship and there were not a significant at the 0.05. The correlation between variables Motivation with Attention was found ($r = -.731, \rho > 0.05$). The result is specified that which was strongly negative relationship and there was not a significant correlation at the 0.05. The correlation between variables Motivation with Self – Awareness was found ($r = .264, \rho > 0.05$). The result is specified that which was weak correlation and there was not a significant correlation at the 0.05. The correlation between variables Motivation with Self – Confidence was found ($r = -.652, \rho > 0.05$). The result is specified that which was strong relationship and there was not a significant correlation at the 0.05 level as per given table 2 value of Pearson Correlation.

According to the Table 9. the correlation between variables Self – Awareness with Arousal Regulation was found ($r = .277, \rho > 0.05$) which is weak

correlation and correlation is not significant at the 0.05 level. The correlation between variables Self – Awareness with Goal Setting was found ($r = .631, \rho > 0.05$). The result is specified that which was strong relationship and there was not a significant correlation at the level 0.05. The correlation between variables Self – Awareness with Imagery was found ($r = -.829^*, \rho < 0.05$). The result is specified that which was very strong negative relationship and there was a significant correlation at the 0.05 level.

The correlation between variables Self – Awareness with Attention ($r = .331, \rho > 0.05$). The result is specified that which was weak relationship and there was not a significant correlation at the 0.05 level. The correlation between Variables Self –

Awareness with Motivation was found ($r = .264, \rho > 0.05$). The result is specified that which was weak correlation and there was not a significant correlation at the 0.05 level. The correlation between Variables Self – Awareness with Self – Confidence was found ($r = .354, \rho > 0.05$). The result is specified that which was weak correlation and there were not a significant at the 0.05 level as per given table 2 value of Pearson Correlation.

According to the table 10. the result showed that the correlation between variables Self – Confidence with Arousal Regulation was found ($r = .546, \rho > 0.05$). The result is specified that which was moderate relationship and there was not a significant correlation at the 0.05 level.

Table 9 Correlation between Selected Variables of Psychological Skills Training Program

S.No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Self - Awareness	SA vs AR	.277	.548	Weak
		SA vs GS	.631	.128	Strong
		SA vs IM	-.829	.021	Very Strong
		SA vs AT	.331	.468	Weak
		SA vs MT	.264	.568	Weak
		SA vs SC	.354	.436	Weak

* Correlation is significant at the 0.05 level (2-tailed)

Table 10 Correlation between selected variables of psychological skills training program.

S.No.	Variable	Between variables	Correlation (r)	ρ	Evaluations
1.	Self - Confidence	SC vs AR	.546	.205	Strong
		SC vs GS	.709	.074	Strong
		SC vs IM	-.103	.826	Very Weak
		SC vs AT	.981	.000	Very Strong
		SC vs MT	-.652	.112	Strong
		SC vs SA	.354	.436	Weak

* Correlation is significant at the 0.05 level (2-tailed)

The correlation between variable Self – Confidence with Motivation was found ($r = -.652, \rho > 0.05$). The result is specified that which was very strong negative relationship and there was not a significant correlation at the 0.05 level. The correlation between variables Self – Confidence with Self – Awareness was found ($r = .354, \rho > 0.05$). The result is specified that which was weak correlation and there was not a significant correlation at the 0.05 level.

4. Discussion and Findings

The purpose of the current study was to examine the relationship between variables of psychological skills training program Arousal Regulation, Goal Setting, Imagery, Attention, Motivation, Self – Awareness and Self – Confidence.

1. The results indicated that there was very strong positive relationship found between variables namely Attention and Self – Confidence ($r = .981^{**}, \rho < 0.01$) which was significant correlation at the 0.05 level.
2. There was very strong negative relationship found between the variables namely Imagery and Self – Awareness ($r = -.829^*, \rho < 0.05$) which was significant at the 0.05 level.
3. There was strong positive relationship found between the variables namely Goal Setting with Self – Confidence ($r = .709, \rho > 0.05$), Goal Setting with Attention ($r = .645, \rho > 0.05$), Goal Setting with Self – Awareness ($r = .631, \rho > 0.05$) but which was not a significant correlation at the 0.05 level.
4. There was strong negative relationship found between the variables namely Imagery with Goal Setting ($r = -.677, \rho > 0.05$), Attention with Motivation ($r = -.731, \rho > 0.05$), Motivation with Self – Confidence ($r = -.652, \rho > 0.05$) but which was not

a significant correlation at the 0.05 level.

5. The variable namely Arousal Regulation was not a significant correlation with Goal Setting, Imagery, Motivation, Attention, Self – Awareness and Self – Confidence.
6. It can be concluded that the self – confidence variable explains 61.6% variations towards the accuracy of others independents variables of psychological skills training program, and hence this particular model can be used to develop the regression model.

5. Recommendation

- a) We can do similar research studies to examine relationship between other psychological variables like Mindfulness, Tension, Anxiety, Team cohesive etc.
- b) We can do similar research studies on other games and sports.
- c) This research study is beneficial for coaches and sports psychologists because psychology skills training program makes a great contribution to the sports excellence.

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