Chapter - VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
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6.1 SUMMARY

The contemporary sport psychologist is expected to fill three primary roles - the first being research, the second role is teaching and third is consulting. All the three play very important role, contribute to performance enhancement and promote psychological well-being.

Understanding of sports psychology is very important to achieve optimum performance and has lots of benefits such as it helps to assess the fit between persons and sports and even positions on a team, helps athletes and coaches value their strengths and become more aware of those areas in which development may be warranted, helps coaches and athletes in a strained relationship, analyze the source of the conflict and build a strategy to reduce it. It can lead to motivated and committed behavior, useful for the athlete and sports professional in career and life planning, self-management (such as stress/time management) and interpersonal skills areas.

The high proficiency of elite athletes in applying psychological skills (i.e. arousal control, self-talk, imagery, focusing) has led sport psychologist consultants to develop mental training programmes aimed at helping less proficient performers to improve those skills. In addition, the idiosyncratic nature of the pre-competition and competition strategies, adopted by athletes of different sports to face performance requirements and competition pressure, urge consultants to adapt and refine mental preparation procedures taking into account the specific needs of the athlete and the particular demands of their sport. Psychological skills training programmes recently implemented in sport have been, among many others, reported for Australian Rules football players, basketball players, golfers, gymnasts and tennis players (T. Morris, 1997).

The purpose of the study was to Develop and Validate Psychological Skills Assessment Scale (PSAS) for Baseball Players. For the purpose of the development of questionnaire initially, two hundred fifty-five (N = 255) male Baseball players aged
18 years and above were selected. The minimum age of the baseball players selected as subjects of the present study was 18 years; maximum age was 38 years and the average age was 22.078 years. The study was confined to those Baseball players who have represented at least inter-collegiate or state level. There were 0.39% subjects from Arunachal Pradesh, 9.01% from Chandigarh, 52.49% from Delhi, 2.74% from Himachal Pradesh, 13.33% from Haryana, 3.92 from Jammu & Kashmir, 3.92% from Madhya Pradesh, 6.66% from Punjab, 0.78% from Rajasthan, 0.39% from Uttar Pradesh and 5.88% from Uttar Pradesh. Further, 0.05% subjects represented India, 39.60% subjects at Senior-National level, 19.21% subjects at All India University level, 30.58% subjects at Inter-College level, 1.56% subjects at State level and 1.96% subjects at North-Zone level. The data pertaining to the educational qualification of baseball players selected as subjects of the present study states that 48.62% of the subjects were B.A.; 10.19% B.Com; 0.39% B.C.A.; 0.78% B.E.; 9.01% B. P. Ed; 11.37% B. Sc. (Physical Education); 0.78% B. Tech.; 3.52% M. A.; 0.78% M. B. A.; 1.17% M.Com.; 0.39% M.Phil.; 11.76% M.P. Ed.; 0.39% M.Sc.; 0.39% M. Tech. and 0.39% L.L.B. the playing positions of baseball players selected as subjects for the present study reflect 12.54% of the subjects as catchers; 10.98% pitchers; 9.80% I-Base; 11.37% II-Base; 9.01% III-Base; 11.37% Short-Stop; 10.19% Left-Out; 10.98% Centre-Out and 13.72% Right-Out. Keeping in view the feasibility of criteria, experts’ opinion and discussion with the advisory committee following eight variables was selected for developing the scale for the assessment of psychological skills in baseball players: Anxiety, Attention, Goal setting, Imagery, Mental preparation, Motivation, Self-confidence and Team cohesion.

Development of questionnaire started with writing the one sixty-one (161) statements and every care taken to see that no ambiguities exist and the terminology was precise. While developing a statement, the research scholar had gone extensively through the literature that exists with respect to psychological skills assessment and the eight sub-variables that contribute to the total psychological skills assessment. Every care was taken to present the statements in simple and sequential manner. The appropriate selection of items for the development of a questionnaire requires a competent panel of experts. Thus, the experts selected for the purpose were concerned with human behavior and were competent enough to select the appropriate statement for the selected eight sub-variables. Furthermore, the experts were experienced, imparting
teaching & coaching and were well versed with the psychological domains of sportspersons. The statements that were 100% agreed upon by experts were retained in the respective sub-scales of the questionnaire. Thus, out of initially prepared 161 statements a total of 84 were retained. Finally, the developed Scale was titled as “Psychological Skills Assessment Scale (PSAS)” which consisted of eighty-four statements with a five point response scale anchored from strongly agree to strongly disagree. After the completion of initial writing, the questionnaire was administered to fifty randomly selected subjects, in order to know that the meaning of all statements on the questionnaire was clear and was adequate to obtain the desired information.

The research scholar also asked for ambiguities in complete statements or misunderstood statements if any, the subjects feel from the statements in the draft questionnaire. On the basis of the first trial run, the suggestions received were incorporated and after making, necessary changes, re-writing were completed. There were few spelling errors which were removed from the questionnaire. There were no suggestions obtained from the subjects after the second trial run administered on randomly selected fifty subjects. The final typing was completed after incorporating all the suggestions and recommendations. All the questions were arranged randomly before administering the questionnaire for collection of data. All the statements were typed with single space, incorporating the personal data of the subjects to know from where the questionnaire has emerged with clear instruction to fill up the questionnaire. The statements finalized were arranged randomly in the questionnaire.

For the purpose of the collection of the data, a total of two hundred fifty-five (255) male aged 18 years and above were randomly selected. Out of these subjects selected the developed scale was administered on fifty subjects selected randomly out of a total of two hundred fifty-five subjects at an interval of fifteen days for a total period of three months for the purpose of establishing the reliability and performing various statistical calculations essential for scientific authentication of scale.

Following Statistical procedure was employed for the Development and Validation of Psychological Skills Assessment Scale (PSAS) for Baseball Players.
Item Analysis

- Item Analysis with initial 84 items in the Scale was computed.

- Item Analysis for each sub-scale after factor extraction of the Scale was computed.

Factor Analysis:

- KMO and Bartlett's Test

- Principal Component Analysis (Factors Extraction with Total Variance)

- Varimax Rotation Method (Unrotated Component Matrix and Rotated Component Matrix with Kaiser Normalization)

- Communalities Calculation Before and After Extraction

- Unrotated Component Matrix

- Cronbach’s Alpha Coefficient of Reliability for all the Sub Scales and for total Psychological Skills Assessment Scale (PSAS)

- Inter-Item Correlation Matrix for all sub scales and Psychological Skills Assessment Scale (PSAS)

- Inter-Item Correlation Matrix for Total of Sub Scales With Psychological Skills Assessment Scale (PSAS)

Descriptive Statistics:

- Descriptive Statistics of all the Sub Scales

- Descriptive Statistics of all the Sub Scales Total with Psychological Skills Assessment Scale (PSAS)
Index of Reliability

Index of reliability for all Sub scales

Index of reliability for overall Psychological Skills Assessment Scale

Norms

The norms for various sub-scales along with overall Psychological Skills Assessment scale were developed on a **five point scale** with the help of means and standard deviation.

Various statistical methods as documented above were computed with help of **Statistical Package for Social Sciences (SPSS) version 16.**

6.2 CONCLUSIONS

In light of the results obtained and based on the objectives of the study and within the limitations of the study, the following conclusions have been drawn:

1. The Cronbach’s Alpha coefficient of Reliability for overall Psychological Skills Assessment Scale (PSAS) for baseball players was found to be 0.935.

2. The Cronbach’s Alpha coefficient reliability for team cohesion sub scale was found to be 0.872.

3. The Cronbach’s Alpha coefficient reliability for goal setting sub scale was found to be 0.785.

4. The Cronbach’s Alpha coefficient reliability for mental preparation sub scale was found to be 0.804.

5. The Cronbach’s Alpha coefficient reliability for self-confidence sub scale was found to be 0.814.
6. The Cronbach’s Alpha coefficient of Reliability for overall Psychological Skills Assessment Scale (PSAS) for baseball players for three trials was found to be 0.815.

7. The Cronbach’s Alpha coefficient of Reliability for team cohesion sub scale for three trials was found to be 0.700.

8. The Cronbach’s Alpha coefficient of Reliability for goal setting sub scale for three trials was found to be 0.736.

9. The Cronbach’s Alpha coefficient of Reliability for mental preparation sub scale for three trials was found to be 0.735.

10. The Cronbach’s Alpha coefficient of Reliability for self-confidence sub scale for three trials was found to be 0.760.

11. The index of reliability for PSAS was 0.966 whereas its sub scales values ranged from 0.886 to 0.933.

12. The norms for overall PSAS and its subscales were established for overall PSAS, a player falling below the score of 66 is categorized as very poor category whereas, a score of 129 will help the individual to fall in very good category.

13. For Team Cohesion sub scale, a player falling below the score of 18 is categorized as very poor category whereas, a score of 40 will help the individual to fall in very good category; Goal Setting sub scale, a player falling below the score of 14 is categorized as very poor category whereas, a score of 30 will help the individual to fall in very good category; Mental Preparation sub scale, a player falling below the score of 12 is categorized as very poor category whereas, a score of 29 will help the individual to fall in very good category; Self Confidence sub scale, a player falling below the score of 16 is categorized as very poor category whereas, a score of 34 will help the individual to fall in very good category.

14. There were moderate (0.318) to strong (0.691) correlation between eight statements under team cohesion subscale whereas, there were strong positive
correlation between total team cohesion subscale score with all the eight statements and the values were from 0.625 to 0.825.

15. There were low (0.233) to moderate (0.483) correlation between six statements under goal-setting subscale whereas, there were strong positive correlation between total goal setting subscale score with all the six statements and the values were from 0.597 to 0.727.

16. There were low (0.282) to moderate (0.541) correlation between six statements under mental-preparation subscale whereas, there were strong positive correlation between total mental-preparation subscale score with all the six statements and the values were from 0.670 to 0.778.

17. There were low (0.272) to moderate (0.476) correlation between seven statements under self-confidence subscale whereas, there were strong positive correlation between total self-confidence subscale score with all the seven statements and the values were from 0.621 to 0.744.

18. There were strong (0.643) to (0.697) correlation between four subscale whereas, there were also strong positive correlation of these subscales with total of psychological skills assessment scale.

19. The mean value for team cohesion subscale was 29.24 whereas, the standard deviation was 6.15.

20. The mean value for goal setting subscale was 22.15 whereas, the standard deviation was 4.49.

21. The mean value for mental preparation subscale was 20.80 whereas, the standard deviation was 4.66.

22. The mean value for self-confidence subscale was 25.35 whereas, the standard deviation was 5.03.

23. The mean value for psychological skills assessment scale (PSAS) was 97.56 whereas, the standard deviation was 17.60.
24. The minimum and maximum scores for Team cohesion sub scale was 9 and 40, for Goal Setting sub scale was 7 and 30, for Mental Preparation sub scale was 6 and 30, for Self Confidence sub scale was 8 and 35 and for PSAS was 43 and 134 respectively and the range value for Team cohesion sub scale was 31, for Goal Setting sub scale was 23, for Mental Preparation sub scale was 24, for Self Confidence sub scale was 27 and for PSAS was 91.

6.3 RECOMMENDATIONS

Based on the findings of this study, further research on this test might be conducted to validate, standardize results and outcome by employing different and varied samples. For additional research, the same design as used in the present study could be used with the following recommendations for further investigation:

1. The same scale (PSAS) can be validating on other games and sports.

2. The similar scale for psychological assessment may be developed and validate for others competitive sports or common for all the games and sports.

3. The similar scale for psychological assessment may be developed and validate for female sports person.

4. The similar scale for psychological assessment may be developed and validated on others subjects at elite / international level.

5. This scale may be compared with similarly developed scale in different sports in other countries.