

DESIGNING AND VALIDATION OF SOCIO- PSYCHOLOGICAL AND SEXUAL CONSTRAINTS QUESTIONNAIRE FOR FEMALE ATHLETES

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Abstract- *The purpose of the paper is to explain and illustrate the procedure employed to construct or validate a questionnaire. The socio-psychological and sexual constraints questionnaire (SPSCQ) was designed to measure the barriers for female athlete in sports participation. The validity and reliability was established through content and face validity, test-retest reliability and internal consistency and Cronbach's alpha. The items on socio-psychological and sexual constraints questionnaire (SPSCQ) indicated the Cronbach's alpha of 0.83-0.95 for four sub-scales. The pilot study conducted on national/international female athletes with revealed the test-retest reliability 0.75-0.97. The final frame with four sub scales has 81-items in total that are accepted as valid and reliable. The responses were taken on five-point Likert scales. The SPSC questionnaire is based on the experiences of sexual and psychological harassment in sports (52 statements) and non supportive behaviour of parents (29-statements)*

Keywords: Sexual/psychological harassment, sociological constraints, validity, Cronbach's alpha, content validity index (CVI)

Traditional society of India did not mark women as an individual with identity and rights; she was only a member of family. Women with athletic abilities have not been accepted by the

society rather she used to be physically attractive **Dorothy (1984)**. The women have been suffering from the inappropriate identity in society. Her life was restricted to home making. The masculine world of sports never accepted her as a strong/tough creature suitable for physical exertion. Society as well as family creates such environment for her that obstruct her overall growth. The meaning of the sports image in society represents a challenge for female athletes because it is still considered a men's world (**Aybar Soltero, 2006**). National Crime Records Bureau (2011) found a huge rise in including rape, kidnap, sexual harassment, trafficking, and cruelty by husbands and relatives. **Muchena & Mapfumo (2012)** Participants in sport can be particularly vulnerable to sexual harassment, as it is an environment characterised often by close physical contact and significant emotional relationships and power dynamics such as between players and their coaches or trainers.

The present paper demonstrates the procedure followed by the researcher to develop and validate a socio-psychological and sexual constraints questionnaire for female athletes. The factors such as obstructive behaviour of parents, psychological harassment and sexual harassment were included as social, psychological and sexual constraints respectively. Sexual and psychological harassment refers to unwanted, exploitative, abusive, degrading, intimidated, forced and/or aggressive behaviour of a sexualised nature. It may be verbal, non verbal and physical in nature (**Deutsch Sports, 2012**)

The whole process of construction and validation was divided into two phases: preliminary phase and secondary phase. The preliminary phase deals with the process of establishing validity and the secondary phase consists of pilot study and reliability. The outline draft of the questionnaire was derived from suggestions and existed literature.

The method or the process of validation included

- Validity:, face validity, translation and content validity
- Reliability: internal (Cronbach's alpha) and external consistency(r of test retest)

Validity refers to the quality of data gathering tool or method that enables it to measure what it is expected or supposed to measure **Best & Kahn (1995)**. Face validity deals with the practicability, transparency of the language, legibility, consistency of design and layout. The face validity verifies suitability and appropriateness of the appearance (**Haladyna 1999; DeVon et al. 2007**).

Face validity

The face validity verifies suitability and appropriateness of the appearance (**Haladyna 1999; DeVon et al. 2007**). The word transparency, chance of responses from the subjects, layout and design was evaluated by twenty national or international level female players. They have completed the questionnaire to assess the face validity form on a Likert scale. It was found that the appearance as well as the wording of questionnaire is feasible and understandable for the specific population.

Content validity

To calculate the content validity of the SPSCQ, the investigator describes the theoretical structure of constraints through thorough literature review and suggestion and opinion of experts. Total 15 experts were involved in the conceptual framework. Expert from the areas of Sociology, languages, Women studies, Punjab women Association, Physical Education, Psychology, female coaches and former female athletes had been reviewed the draft 96-item SPSCQ to ensure consistency of the conceptual framework. All the experts were given 5 point likert scale (1-not relevant, 2-somewhat relevant, 3-undecided, 4-relevant, 5-very relevant) for rating. The rating of 5/5 (1.00) was given by seven experts 4/5 (.80) by eight experts. The average expert proportion was .94. It was calculated by adding all the rates divided by number of experts. The CVI rating signifies that the content is valid or suitable and consistent with the theoretical framework (Lynn 1996). Persian and Dunning (2007) constructed a spirituality scale. They selected those valid items in the scale with CVIs ranging from 0.87 (7/8) to 0.100 (8/8).

Translation

The translation validity evaluated the transparency of language, appropriate wording, arrangement and design was verified before the final study. From the literary point of view trio language (English, Hindi and Punjabi) was finalized as the most appropriate format for the questionnaire. The linguistic difficulty might influence the conclusions or results of the study. The experts from the fields of language studies were consulted for supervision. The expert's opinion recommended for translating the questionnaire into Hindi and Punjabi language.

Reliability

Reliability is the degree of stability in results of instrument or procedure throughout measurement.

Internal Consistency Reliability

Internal consistency inspects the inter-item association or correlation within an instrument and it also specify the conceptual organization and arrangement of items (Nunnally & Bernstein 1994; DeVon et al. 2007). The total score of all the items was computed to estimate the consistency of the complete questionnaire. The split half and Cronbach's alpha was used to measure the internal consistency of the questionnaire (Trochim 2001). Cronbach's alpha is equal to the average of the all possible split-half estimations and hence most commonly used consistency statistic method for internal consistency reliability (Trochim 2001; DeVon et al. 2007). Cronbach's alpha was employed to know the the internal consistency of the SPSCQ. **Nunnally & Bernstein 1994; DeVon et al. 2007** said that if questionnaire has subscale the Cronbach's alpha of each sub scale needs to be computed.

External consistency of the questionnaire was computed by using Pearson correlation of test retest scores. The correlation of all subscales was shown in the following table.

	Standard Deviation	Mean	Pearson Correlation
Subscale 1 (Test)	71.15	31.759	.976**
Subscale 1 (Retest)	71.20	30.981	
Subscale 2 (Test)	50.35	13.287	.958**
Subscale 2 (Retest)	48.25	13.719	
Subscale 3 (Test)	40.60	5.853	.755
Subscale 3 (Retest)	39.30	8.461	
Subscale 4 (Test)	67.15	23.924	.871**
Subscale 4 (Retest)	67.25	22.918	

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

The final SPSC Questionnaire

The final Socio-Psychological and Sexual Constraints Questionnaire (SPSCQ) includes four subscales:

- 1) Subscale 1: behaviour of male coach/physical education teacher was assessed by the perception of female athletes. The 29-items related to verbal and non-verbal type of harassment faced by female athletes in sports.
- 2) Subscale 2: related to male athletes. The indecent behaviour of male athletes against female athletes was taken into account. These 13-statements represent the maltreatment experiences from female athletes the consisted of abused.
- 3) Subscale 3: 10 statements were found to be valid. These items were based on the abused behaviour of male spectators on and off the field. The female athletes have either observed or perceived this type of harassments.
- 4) Subscale 4: parental behaviour and influence could be responsible for sociological barrier for females in sports participation. 29 statements related to the obstructive behaviour of parents were finally selected.

While discovering or investigating a complex phenomena such as constraints it is very important justify the truthfulness, precision of the tool or quantification used for developing a valid measure. The procedure used to validate the questionnaire was rigorous and suitable. The outcomes or results of the validation process of the SPSCQ signified that it is an appropriate and accurate to measure the socio-psychological and sexual constraints of female athletes in sports participation. Though face validity is the weakest form of validity but it was helpful to provide essential information about the organisation and administration of the questionnaire for the sample. Content validity evaluates relevance of the content used for defining the abstract idea or notion of socio-psychological and sexual constraints faced by female athletes. The internal and external reliability followed by the pilot briefly stated the stability of the responses over the time on the SPSCQ. Consequently the SPSCQ may possibly be used for to know the socio-psychological and sexual constraints of female athletes in sports participation. These constraints in the field of sports may affect the frequency and level participation of females.

This paper presented the construction and validation of the SPSCQ to evaluate or measure socio-psychological and sexual constraints with a specific description and background. It is recommended to employ convergent and discriminant validity for indicating the resemblance and divergences of the SPSCQ with other similar measures. It is further recommended that validity and reliability of the tool could be validated with the help of some other statistical processes and

techniques. One might be utilized on a larger sample with different demographic features to support the generalization of the questionnaire.

Conclusion

It is concluded from the above discussion that SPSCQ is a valid and consistent research tool for the generalizing on a wider sports arena.

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