

Psychometric Properties of Iranian Man Spousal Abuse Questionnaire

**Shahrbanoo Ghahari^{1,2}, Maryam Yeke Fallah³, Mehran Zarghami^{2,4},
Fatemeh Viesy¹, Raofeh Ghayoomi⁵, Reza Davoodi³
and Abouzar Nouri Talemi^{6,7*}**

¹*School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences (IUMS), Tehran, Iran.*

²*Psychiatry and Behavioral Sciences Research Center, Addiction Institute, Mazandaran University of Medical Sciences, Sari, Iran.*

³*Department of Clinical Psychology, Islamic Azad University, Tonekabon, Iran.*

⁴*Department of Psychiatry, School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran.*

⁵*Department of Social Psychiatry, School of Behavioral Sciences and Mental Health (Tehran Institute of Psychiatry), Iran University of Medical Sciences (IUMS), Tehran, Iran.*

⁶*Civil Hospital, Department of Psychiatry, Dow Medical College, Karachi, Pakistan.*

⁷*Department of Psychiatry, Faculty of Medicine, AJA University of Medical Sciences, Tehran, Iran.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aim: This study was conducted to examine psychometric properties of Iranian Man spousal Abuse Questionnaire.

Methodology: This descriptive study was carried out within two steps using combined method including qualitative steps. Authors performed deep interview and determined the focused group of men's spouse abuse concept then designed the questionnaire using phenomenology method. At

*Corresponding author: E-mail: Abzinouri@gmail.com;

second step, psychometric properties of questionnaire were addressed using exploratory factor analysis, validity of instrument and internal consistency. Statistical population consisted of married men living in Alborz and Tehran in Iran in 2017 who had referred to couple therapy clinics complaining about marital problems; 7 psychologists working in these centers also participated in this study. 400 married men living in Alborz were selected using convenient sampling method; these members filled the man abuse questionnaire out.

Results: According to the results obtained from the 50-item questionnaire that measures 5 dimensions of men's domestic violence including active aggression and sexual abuse, verbal abuse and negligence, emotional and verbal abuse, passive aggression and domination, these 5 factors could explain 67.05% of total variance. Moreover, the obtained Cronbach's alpha (0.98) for all questions indicated high internal consistency of questions.

Conclusion: Findings show that the questionnaire of domestic violence against men made it possible to evaluate various dimensions of domestic violence against men using 5 factors and it is a suitable instrument to assess men' domestic violence in Iranian community considering results obtained from validity and reliability calculation.

Keywords: Phenomenology; Iran; psychometric properties; sexual abuse.

1. INTRODUCTION

Violence is an action done by a person to create pain, physical, mental, or emotional injury against another person and domestic violence (spouse abuse) the most common violence that is done as a physical, sexual, mental, economic, and social violence [1]. Domestic violence or spouse abuse is defined as a violence occurring between family members and spouses usually not always in home. Spouse abuse means any behavior in an intimate relationship that leads to physical, sexual, or psychological harm [2]. It is also defined as an important health problem [3]. So that WHO introduced it as a health priority in 2000 [4]. That consists of three general categories of physical, sexual, and mental-emotional violence [5]. This issue is the root of numerous personal and social harms that can be seen in all of developed and developing countries in all of social, economic, age and job groups [6].

According to the definition of WHO, Intimate Partner Violence is defined as some behaviors in an intimate relationship that lead to physical, sexual, or mental harm. This definition expresses the imposed violence by sexual partner and current or ex-spouse [7]. This kind of violence destroys the society playing the role of a global dilemma that threatens life, health, and happiness of people [8]. Although the concept of domestic violence expresses the violence between family members, it refers usually to the violence between adults that are sexual or emotional partners. Domestic violence is described as spouse abuse, wife abuse, partner abuse, marital violence and other similar expressions so that

these may be used as synonyms [9]. In opinion of Antunes-Alves and De Stefano (2014), lack of appropriate relationships between couples, unmet demands and needs, lack of intimacy leading to increased conflicts and decreased marital satisfaction and mental-emotional problems can be named as reasons for domestic violence. Risky factor of domestic violence are gender, being sacrificed during childhood, young age, having children, separation from life partner, and weak socio-economic position [10,11]. There are mental health problems, mood instability and lack of feelings in families at risk of violence [12]. Some researchers and scholars of social problem have paid attention to this kind of domestic violence, violence of women against men in recent years [13]. Mental implications of this violence include depression, physicalization, addiction, inefficiency feeling, lack of self-respect, mood and anxious disorders, in particular post-trauma tension, self-deterioration behaviors, and suicide attempt [14,15]. Moreover, domestic violence against men has irreversible consequences such as divorce, addiction, offense. A study about violence against men in Germany classified the violence of women against men to 4 categories of physical violence, social, emotional, and sexual controls. Men reported the physical violence of their last partner that had happened at least once or several times. The following behaviors have been reported: pushing (18%), slapping (9%), beating or scratching (7%), kicking painfully, pressing or grabbing (5%) and throwing objects (5%); almost 5% of respondents had experienced an injury because of domestic violence at least once [16]. In Iran, Kheyrikhah (2011) concluded in his study the mental-verbal

violence is the most common and effective violence against men so that those men with poor economic situation that are dependent on their spouses financially or have moral problems or addiction are more exposure to domestic violence. It means that men victims of violence consider it due to their poor situation and lack of power in family; moreover, men employ various strategies when facing harming and violent behaviors of their spouses and these strategies are different based of common life years, age, education, job, income, and cultural contexts [17].

The applied instrument in this field is Mckintosh & Hadsun's questionnaire (1981) that is designed to measure physical or non-physical harms of spouse against the victim. This questionnaire is a self-report scale with 309 items. 11 items are related to physical abuse and 19 items are related to mental abuse scored at a 5-point Likert Scale. The suggested cutoff point for physical abuse is above 10 and score of mental abuse was above 25 [18]. One another instrument is Conflict Tactic Scale 2 (CTS-2). This scale is an applied instrument used to collect data related to spouse abuse; this scale evaluates violence bilaterally (committing violence or victim of violence) considering physical-psychological dimensions, sexual dominance, and physical abuse. Reliability coefficient of this scale was reported to 79% by Straus et al. (1996). Another questionnaire related to assessment of violence against women is Haj Yahya's scale including 32 items and 4 factors that examine physical, mental, sexual, and economic dimensions of violence. According to the results obtained from Palestinians survey about violence against women (study on 2410 women), internal reliability coefficient (Cronbach's alpha) obtained to 71%, 86%, 93%, and 92% for 4 test factors of Haj Yahya's Scale [19].

In Iran, an instrument was designed by Mohseni Tabrizi (2010) to assess domestic violence; this questionnaire consists of 71 items. Questionnaire scoring had two parts that were scored based on 4-point Likert Scale. The obtained scores are added then multiplied by 10. Cronbach's alpha of this questionnaire obtained to 83% indicating adequate reliability of questions, items and scales of this instrument; reliability coefficient of this questionnaire obtained to 82% using Cronbach's alpha in this paper [20]. Although this test has optimal validity and internal consistency, it seems that not all aspects of spouse abuse have been covered in it. In particular, all of

questionnaires designed in this field are specified to domestic violence against women; hence, it was essential to design a comprehensive questionnaire to measure spousal violence against men. In this regard, this study was conducted to design a valid and holistic instrument to measure spouse violence against men in Iran.

2. METHODS

This study aimed at designing, factor analysis recognizing and exploratory validating questionnaire of domestic violence against men. This study was conducted using combined method; at qualitative part, phenomenology method and at quantitative part, descriptive and correlation method based on factor analysis were used. To design items of this questionnaire, researcher employed given psychological and psychiatric literature; focused interview was performed for 12 abused men and deep interview was performed for 8 abused men in Tehran during 2015. All of interviewed men had referred to couple therapy centers in Tehran. Moreover, 6 psychologists who had worked in couple therapy field were deeply interviewed and their opinions about man abuse indicators were taken. After preparing questionnaire, face validity of this questionnaire was confirmed by psychiatric and psychology professors and their ideas were taken then questionnaire was distributed among 400 married men living in Alborz Province to evaluate internal consistency of questionnaire. Convenient sampling method was used and studied men were covered by healthcare centers or governmental and private companies in Alborz Province. All of participants who filled the questionnaires out had announced their consent and those who gave up were removed from study.

2.1 Measurement Instruments

Demographic Questionnaire: This is a researcher-made questionnaire that evaluates some demographic features of sample members.

Men's Spouse Abuse Questionnaire: This questionnaire consists of 50 items based on Likert Scale (always: 3, often: 2, sometimes: 1, Never: 0). this questionnaire evaluates 5 dimensions of spouse abuse against men; these dimensions are as follows: active aggression and sexual abuse, emotional and verbal abuse, verbal abuse and neglect, passive aggression and domination; these factors could explain

67.05% of total variance. Cronbach's alpha obtained to 0.98 for this questionnaire in this study that shows high internal consistency of questions.

3. RESULTS

Findings of statistical analysis are presented herein.

3.1 Factor Analysis

Data were analyzed using main elements analysis with varimax rotation. Factor ability indicators were good so that sample size adequacy rate (KMO) obtained to 0.96 and $p=0.000$ indicating factor ability of data. There were 5 factors with eigenvalues above 1. Scree plot also confirmed all of 5 factors. According to the results obtained from factor analysis and indicators in table, of all items, 5 extracted factors could explain 67.05% of total variance. Factor analysis showed 5 factors extracting main elements and varimax rotation. Eigenvalues of these 5 factors, explanation percent, variance, and cumulative percent are reported in table below.

Factor 1: active aggression and sexual abuse: questions 19, 25, 26, 27, 32, 33, 34, 36, 38, 39, 42, 43, 44, 45, 46, 47, 48, 50.

Factor 2: emotional and verbal abuse: questions 1, 2, 4, 5, 6, 7, 8, 11, 12, 14, 18, 20, 23.

Factor 3: verbal abuse and negligence: questions 9, 10, 15, 16, 17, 21, 22, 28, 31.

Factor 4: passive aggression: questions 3, 13, 30, 35, 37, 49.

Factor 5: domination: questions 24, 29, 40, 41.

3.2 Reliability

Reliability was calculated using Cronbach's alpha method. The internal consistency obtained from Cronbach's alpha was appropriate (Table 3).

3.3 Ratio of Each Item Correlation Coefficient to Total

Ratio of each Item has Correlation Coefficient to Total items.

4. DISCUSSION

This study aimed at designing, factor analysis recognizing and exploratory validating questionnaire of Spousal abuse against men in an Iranian men. To examine validity of this scale, factor analysis-based correlation method was employed and to investigate its reliability, Cronbach's alpha was used and obtained results were confirmed.

Scree Plot

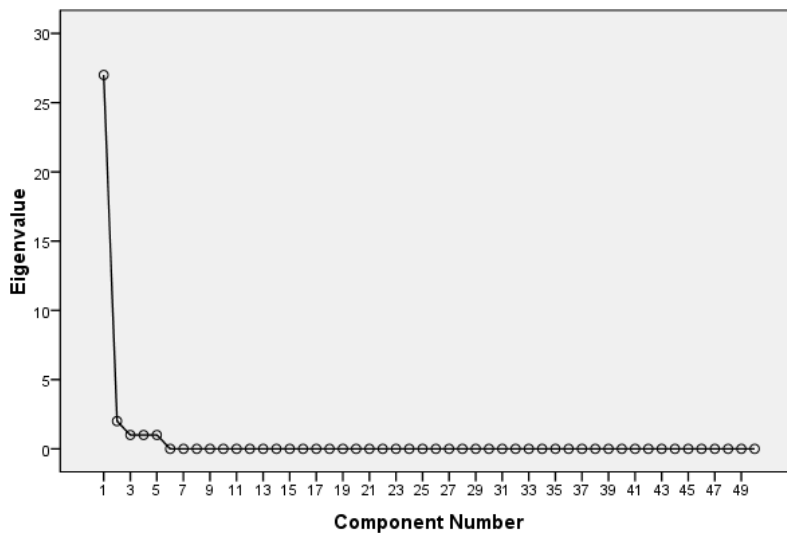


Fig. 1. Scree plot

Table 1. Explained variance by factor analysis

Sum of rotated loads			Sum of extracted loads			Initial eigenvalue			Factors
Explanation percent of cumulative variance	Variance explanation percent	Total	Explanation percent of cumulative variance	Variance explanation percent	Total	Explanation percent of cumulative variance	Variance explanation percent	Total	
20/46	20/46	10/23	54/93	54/93	27/46	54/93	54/93	27/46	1
36/17	15/70	7/85	60/13	5/2	2/60	60/13	5/2	2/60	2
48/68	12/51	6/25	62/87	2/70	1/37	62/87	2/70	1/37	3
58/97	10/28	5/14	65/34	2/47	1/23	65/34	2/47	1/23	4
67/50	8/53	4/26	67/50	2/15	1/07	67/50	2/15	1/07	5

Table 2. Factor loads after varimax rotation

Factor 5	Factor 4	Factor 3	Factor 2	Factor 1
Question 24 (0/48)	Question 3 (0/57)	Question 9 (0/68)	Question1 (0/51)	Question 19 (0/48)
Question 29 (0/48)	Question 13 (0/55)	Question10 (0/59)	Question2 (0/49)	Question 25 (0/56)
Question 40 (0/65)	Question 30 (0/42)	Question 15 (0/57)	Question 4 (0/65)	Question 26 (0/61)
Question 41 (0/55)	Question 35 (0/53)	Question 16 (0/56)	Question 5 (0/66)	Question27 (0/53)
	Question 37 (0/52)	Question 17 (0/48)	Question 6 (0/69)	Question 32 (0/58)
	Question 49 (0/47)	Question21 (0/53)	Question 7 (0/55)	Question 33 (0/49)
		Question22 (0/71)	Question 8 (0/59)	Question 34 (0/58)
		Question 28 (0/42)	Question 11 (0/63)	Question 36 (0/68)
		Question 31 (0/43)	Question 12 (0/45)	Question 38 (0/50)
			Question 14 (0/58)	Question39 (0/56)
			Question 18 (0/60)	Question42 (0/58)
			Question 20 (0/44)	Question43 (0/71)
			Question23 (0/65)	Question44 (0/68)
				Question45 (0/75)
				Question46 (0/69)
				Question47 (0/75)
				Question 48 (0/51)
				Question 50 (0/65)

Table 3. Total and factors Cronbach's alpha

Factor 5	Factor 4	Factor 3	Factor 2	Factor 1	Total items	Cronbach's alpha coefficient
0/86	0/90	0/92	0/93	0/96	0/98	

The questionnaire of domestic violence against men was designed based on 4-point Likert scale; this questionnaire evaluates types and intensity of physical, emotional, and sexual violence of woman against man that is applicable because of its simplicity.

Available psychiatry and psychology literature was used when designing items of this questionnaire; at this step, 50 items and 5 factors were identified after deep interview with 8 abused man, focused interview with 12 abused men, and deep interview with 6 psychologists.

The identified factors were as follows: factor 1: active aggression and sexual abuse (questions 19, 25, 26, 27, 32, 33, 34, 36, 38, 39, 42, 43, 44, 45, 46, 47, 48, 50); factor 2: emotional and verbal abuse (questions 1, 2, 4, 5, 6, 7, 8, 11, 12, 14, 18, 20, 23); factor 3: verbal abuse and negligence (questions 9, 10, 15, 16, 17, 21, 22, 28, 31); factor 4: passive aggression (questions 3, 13, 30, 35, 37, 49); factor 5: domination (questions 24, 29, 40, 41). After approving face validity of questionnaire by Iranian psychologists and psychiatrics, variable validity was determined. According to the results obtained

from factor analysis and introduced indicators, 5 extracted factors among all items could explain 67.05% of total variance. Factor analysis showed 5 factors using main elements extraction and varimax rotation.

Table 4. Correlation coefficient of each item to total

	Scale mean by deleting question	Questionnaire variance by deleting question	Correlation between total and component	Cronbach's alpha by deleting question
pm1	66.96	559.224	.715	.982
pm2	66.91	555.108	.763	.982
pm3	67.04	559.572	.719	.982
pm4	66.85	556.716	.703	.982
pm5	66.80	556.112	.712	.982
pm6	66.76	558.961	.619	.982
pm7	66.91	553.589	.802	.982
pm8	66.80	555.335	.674	.982
pm9	66.95	559.604	.666	.982
pm10	66.93	555.499	.763	.982
pm11	66.74	559.847	.550	.982
pm12	66.89	554.559	.772	.982
pm13	67.04	560.330	.697	.982
pm14	66.94	554.480	.768	.982
pm15	66.86	556.157	.648	.982
pm16	67.00	556.672	.761	.982
pm17	66.98	556.829	.737	.982
pm18	66.54	558.856	.607	.982
pm19	66.98	557.656	.753	.982
pm20	66.90	556.107	.728	.982
pm21	66.78	553.371	.740	.982
pm22	66.96	555.558	.753	.982
pm23	66.49	555.068	.621	.982
pm24	66.72	555.104	.666	.982
pm25	67.02	561.222	.768	.982
pm26	66.98	559.478	.709	.982
pm27	67.04	559.346	.761	.982
pm28	66.93	553.898	.797	.982
pm29	66.90	553.208	.790	.982
pm30	66.96	555.394	.787	.982
pm31	66.90	553.566	.775	.982
pm32	67.00	556.198	.776	.982
pm33	66.95	554.499	.805	.982
pm34	67.00	562.090	.654	.982
pm35	67.05	559.629	.723	.982
pm36	67.06	561.977	.684	.982
pm37	67.05	559.684	.750	.982
pm38	66.98	559.153	.684	.982
pm39	67.06	559.234	.737	.982
pm40	66.88	553.496	.713	.982
pm41	66.95	555.621	.725	.982
pm42	66.93	557.722	.739	.982
pm43	66.96	559.613	.714	.982
pm44	66.98	557.170	.792	.982
pm45	67.04	559.850	.729	.982
pm46	67.01	560.559	.678	.982
pm47	67.05	559.975	.751	.982
pm48	67.02	558.328	.799	.982
pm49	66.96	558.377	.755	.982
pm50	67.03	558.899	.768	.982

Results of eigenvalue indicated multifactorial questionnaire. Since the minimum factor load for the concept coverage in a factor depends on the questionnaire expressions and eigenvalue (Knap & Brown, 1995), each extracted factor was named based on variables of each factor then its adaptability with dimensions of domestic violence against men was examined. In this research, being factor was highly great so that sampling adequacy (KMO) obtained to 0.96 and the calculated $p=0.000$ confirmed the ability of data to be factor; 5 factors with eigenvalues above 1 were found and scree plot approved these 5 factors.

Since domestic violence and spouse abuse are related to various moods such as depression, fatigue, confusion, etc. [21]. It was essential to design an instrument to assess all aspects of this violence; validity and reliability of such instrument should be confirmed. It was required to create an instrument with high validity and reliability that covers all dimensions of domestic violence against men sine such men have specific personality traits and since there was not such instrument. Hence, qualitative and quantitative methods were used in this study to design and validate spouse abuse questionnaire consisting of 5 subscales.

To address internal consistency of research factors in this research, Cronbach's alpha coefficient was used and results showed acceptable internal consistency; therefore, the results obtained from this study showed high consistency of instrument. The obtained reliability of questionnaire of domestic violence against men was equal to 0.98 using Cronbach's alpha that showed high internal consistency of questions; in this case, high correlation between each question and score led not to removal of scale's items.

Results of this study implied that questionnaire of domestic violence against men is a suitable instrument to assess domestic violence against men in Iranian community since this questionnaire covers all specifications of men victims of violence and since this questionnaire is simply applicable with high validity and reliability [22].

5. CONCLUSION

Results of current study showed that this questionnaire is a suitable instrument to assess spousal abuse against men in Iranian community.

6. LIMITATION

The barrier to this study was non-cooperation of men victims of domestic violence. Since these men were living in a patriarchal society, it was difficult for men to confess this so they avoided answering such questions and some sample members gave up filling the questionnaire out. The strength of this study is its innovation in field of man abuse and it is recommended to further studies considering various geographical regions and society groups in Iran.

7. SUGGESTIONS

We suggest this questionnaire for screening of spousal man abuse in Iran.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard, written approval of Ethics committee has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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