Original Article

Psychometric Properties of the Disrespect and Abuse Questionnaire in Iranian Parturient Women

Khadije Hajizadeh[1], Mohammad Asghari Jafarabadi[4,5], Maryam Vaezi[6], Shahla Meedya[7], Sakineh Mohammad-Alizadeh-Charandabi[2], Mojgan Mirghafourvand[3]

[1]PhD of Midwifery, Midwifery Department, [2]Department of Midwifery, Faculty of Nursing and Midwifery, [3]Social Determinants of Health Research Center, Tabriz University of Medical Sciences, Tabriz, Iran, [4]Cabrini Research, Cabrini Health, VIC 3144, Australia, [5]School of Public Health and Preventative Medicine, Faculty of Medicine, Nursing and Health Sciences, Monash University, VIC 3800, Australia, Road Traffic Injury Research Center, Tabriz Meedya: Australian Catholic University, Australia, [6]Fellowship of Gynecology Oncology, Alzahra Teaching Hospital, Tabriz University of Medical Sciences, Tabriz, Iran, [7]Member of South Asia Infant Feeding Research Network (SAIFRN), School of Nursing, Faculty of Science, Medicine and Health, University of Wollongong, Wollongong, Australia

Address for correspondence:
Dr. Mojgan Mirghafourvand, Social Determinants of Health Research Center, Tabriz University of Medical Sciences, Tabriz, Iran.
E-mail: mirghafourvand@gmail.com

Abstract

Background: Disrespect and abuse during childbirth is regarded as harassment of women and a violation of their rights. The aim of this study was to assess the psychometric properties of the disrespect and abuse questionnaire in Iranian parturient women. **Materials and Methods:** This cross-sectional study was conducted on 265 postpartum women in both private and public hospitals in Tabriz, Iran. The scale was translated from English into Farsi. In the quantitative face validity, the impact score was determined for each item. Moreover, in the quantitative content validity, the Content Validity Ratio (CVR) and Content Validity Index (CVI) were assessed based on the comments of experts on the relevance, clarity, and simplicity of items (CVI) and the necessity of items (CVR). Construct validity was assessed through exploratory and confirmatory factor analyses. **Results:** In the face validity assessment, all items received a minimum impact score of 1.5. In assessing the content validity, all the items attained the minimum acceptable value of CVR (>0.69) and CVI (>0.79). According to the exploratory factor analysis, the Disrespect and Abuse[r] Questionnaire has 23 items and five factors, including abandoning the mother, improper care, mother's immobility, not talking to the mother, and mother's deprivation. The construct validity of the scale was confirmed by the confirmatory factor analysis, in which X^2/df <5 and root mean square error of approximation <0.08. **Conclusions:** The Farsi version of the disrespect and abuse questionnaire can be used as a valid tool for assessing instances of lack of respectful maternity care in the postpartum period.

Keywords: *Abuse, Iran, Psychometrics, reliability, validity*

Introduction

Childbirth is an important event for the mother and her family members. Disrespect and abuse during childbirth are regarded as harassment of women and a violation of their rights. Disrespect and abuse during childbirth have been reported in health facilities around the world in both high-income and low-income countries.[1] Disrespect and abuse are a multifactorial event that may be perceived differently by different women or may even be considered normal by some. The nature of healthcare providers' power and control over parturient women may lead to acts of violence by them during childbirth; through their power and control, they may coerce women to accept unnecessary treatments, interventions, and surgical procedures.[2] Some categories of mistreatment, such as physical and verbal abuse, are committed overtly, and some others, such as humiliation or abandonment of care, are committed covertly.[2]

Disrespect and abuse can diminish satisfaction with and trust in the healthcare system and have adverse economic consequences such as delaying care, skipping prenatal care, and undergoing labor and delivery at home.[3-5] Disrespect and abuse can be major barriers to the selection of and access to skilled care.[6] Health personnel's mistreatment of women in the delivery room leads to long-term damage and emotional traumas.[7] The results of satisfaction surveys in Iran show moderate patient satisfaction with childbirth and labor (60% to 70%), but much lower satisfaction in the dimension of moral support.[8]

Considering the importance of Respectful Maternity Care (RMC) and the fact that one of the nonmedical reasons for cesarean in Iran is fear, and disrespect and abuse can increase the fear of childbirth and reduce the prevalence of vaginal birth,[9] assessment of disrespect and abuse

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Hajizadeh K, Jafarabadi MA, Vaezi M, Meedya S, Mohammad-Alizadeh-Charandabi S, Mirghafourvand M. Psychometric properties of the disrespect and abuse questionnaire in Iranian parturient women. Iranian J Nursing Midwifery Res 2023;28:72-7.

Submitted: 20-Sep-2021. **Revised:** 19-Dec-2021. **Accepted:** 10-Oct-2022. **Published:** 27-Jan-2023.

Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.ijnmr_228_21

Quick Response Code:

using a valid instrument in Iranian parturient women is necessary.

Although previous studies suggest that satisfaction with maternal care is closely associated with respectful care,[10] no reliable questionnaires were found in Iran for assessing women's perception of disrespect and abuse. Moreover, due to the differences between the cultures of societies, disrespect and abuse must be assessed separately in each society. Considering the importance of respect in the delivery room and the absence of a standard disrespect and abuse assessment tool in Iran, this study was conducted to assess the psychometric properties of the disrespect and abuse questionnaire in Iranian women.

Materials and Methods

This cross-sectional study was a part of a large mixed-method study, the protocol of which has previously been published.[11] It was conducted on 265 postpartum women in Tabriz, Iran, from September 1 to November 10, 2019.

The inclusion criterion was undergoing vaginal birth. The study exclusion criteria were experiencing a stressful event, mental health disorders and depression, major neonatal abnormalities, mental retardation, and deafness.

Nunnally and Bernstein (1994) recommend the selection of 10 participants per item in factor analysis.[12] The disrespect and abuse questionnaire contains 23 items; therefore, 265 participants would be required (possible withdrawal rate of 20%).

The disrespect and abuse questionnaire consists of the seven domains the woman is protected from physical harm or ill-treatment, the woman's right to information, informed consent, and choice/preferences is protected, the woman's confidentiality and privacy are protected, the woman is treated with dignity and respect, the woman receives equitable care, free of discrimination, the woman is never left without care/attention, the woman is never detained or confined against her will. If the answer was yes to any of the items in a domain, abuse was considered for that domain. This tool was completed 6 to 18 h after delivery. This scale was designed by Asefa and Bekele (2015)[13] and approved by the Maternal and Child Health Integrated Program (USAID, 2011).[14]

Written permission for adapting the tool to the Iranian culture was obtained from the tool developer (Asefa). The disrespect and abuse questionnaire was translated from English into Farsi. The Farsi version was then translated back into English by two translators. The study was conducted on 265 women who gave birth at public (two hospitals) and private (four hospitals) hospitals in Tabriz. The participants completed the disrespect and abuse questionnaire 6–18 h after childbirth.

The face and content validity of the questionnaire were evaluated through qualitative and quantitative methods. In the qualitative method, the questionnaire was distributed among 10 experts in midwifery, gynecology, and reproductive health, and they were asked to comment on the appropriateness of the measure regarding grammar, use of appropriate words, and appropriate placement of the items. The necessary modifications were made according to the feedback provided.

In the quantitative face validity, 20 postpartum women assessed all the scale items in terms of simplicity, clarity, and relevance. Then, based on their responses on a Likert scale ranging from one point ('totally difficult or unclear') to four points ('totally simple and clear'), the item impact of each question was found using the impact score [Impact score = Importance (mean responses to the item) × frequency (the number of responses scored 4)]. If an item had an impact score <1.5, that item was removed. Moreover, in the quantitative content validity, the Content Validity Ratio (CVR) and Content Validity Index (CVI) were assessed based on the comments of experts on the relevance, clarity, and simplicity of items (CVI) and the necessity of items CVR. CVI and CVR were measured based on a four-point scale. For CVI, a score >0.79 was considered acceptable, and the minimum acceptable CVR was 0.62.[15,16]

Given the binary form of the variables, the factor structure of disrespect and abuse was determined using the Content Validity Index (EFA) in Mplus-7.4 with oblique rotation. In confirmatory factor analysis, the adequacy of the model was assessed by the goodness of fit indices. Reasonable values are X^2/df <5, Root Mean Square Error of Approximation (RMSEA) <0.05, Tucker–Lewis Index (TLI) >0.95, and Comparative Fit Index (CFI) >0.095.[17]

The reliability of the scale was assessed through internal consistency (Cronbach's alpha) and test-retest reliability (ICC: intra-class correlation coefficient) methods in a sample of 20 women. ICC was calculated for a group of mothers who completed the questionnaire twice, with a two-week interval. Alpha coefficients ≥0.6 were considered acceptable. An ICC >0.8 was considered an excellent agreement.[18]

Ethical considerations

This study has been approved by the Ethics Committee (code number: IR.TBZMED.REC.1398.202). Informed consent was obtained from all individual participants included in the study.

Results

Participants' characteristics

A total of 265 women entered the study. The demographic characteristics of the participants are presented in Table 1.

Face and content validity

In the face validity assessment, all the items received a minimum score of 1.5. In assessing the content validity, all the items attained the minimum acceptable value of CVR (>0.69). In assessing the CVI, all items except the second item obtained a score higher than 0.79 (Second item = 0.76). This item was revised and remained in the questionnaire [Table 2].

Construct validity

EFA was used to explain the correlation pattern between the items. After evaluating the face validity and content validity, during a cross-sectional study on 265 postpartum women who met the inclusion criteria, the construct validity of the questionnaire was assessed.

Given the binary form of the variables, the factor structure of disrespect and abuse was determined using EFA in Mplus-7.4. The EFA data are based on estimator: WLSMV, rotation: GEOMIN, and type of rotation: OBLIQUE. The results showed that the five-factor model should be chosen as the optimal model (Chi-square: 167.15; Freedom: 148; P = 0.134). The results further showed that the highest percentage of the total variance (56.48%) was explained by the first factor and the remaining total variance (27.05%) by the next 4 factors. The cumulative explained percentage of the five factors was 83.58%.

The percentage of variance expressed by each factor in factors 1 to 5 was as follows: percentage of variance explained by the first factor: 56.48%; second factor: 9.44%; third factor: 7.16%; fourth factor: 5.47%; and fifth factor: 4.98%.

To make the comparison, the model was first checked for the degree of fit using the Chi-square test, which required that the optimal model not be significant in this test, in which case the five-factor model was optimal. Furthermore, a comparison was made between the results of one to six factors, and if the model with a higher number of factors was significantly different from the model with a lower number, the model with the higher number was selected. Ultimately, the five-factor model was selected as the optimal model.

Finally, the developed version of the disrespect and abuse questionnaire was confirmed with 23 items and five factors [abandoning the mother (items 10, 11, 21, and 22), improper care (5, 6, 9, 14, 15, 16, 17, 18, 19, and 20), mother's immobility (2, 12, and 13), not talking to the mother (1, 7, 8, 10, 11, and 16), and mother's deprivation (3, 4, and 23) [Table 3].

The factor analysis fit index of disrespect and abuse confirmed the validity of this model: X^2/df was less than five, RMSEA was <0.08, and RMR was less than 0.10. Moreover, the fit indices of TLI and CFI were >0.9. Therefore, this model has the best fit. The construct validity of the scale was also confirmed considering that the confirmatory factor model yielded a relatively good fit and the results of the EFA were supported by the confirmatory models.

Reliability

The Cronbach's alpha coefficient for the entire questionnaire was 0.90. ICC was calculated to be

Table 1: Demographic characteristics of the study participants (n=265)

Characteristics	Statistical Test
Age (years)	27.66 (0.41)*
Education	
Primary and secondary school	105 (39.70)**
High school	116 (43.80)**
University	44 (16.60)**
Occupational status	
Housewife	252 (95.10)**
Employee	13 (4.90)**
Income	
Less than sufficient	34 (12.80)**
Sufficient	209 (78.90)**
More than sufficient (Ability to save money)	22 (8.30)**
Gestational age (weeks)	37.90 (0.24)*

*Mean (standard deviation); ** n (%)

Table 2: The impact score, Content Validity Ratio, and Content Validity Index (CVI, and CVR) for each question of the disrespect and abuse questionnaire

Question number	Impact score	CVI*	CVR**
1	4	0.9	0.8
2	3.93	0.76	1
3	4	1	1
4	4	1	1
5	3.93	1	1
6	3.70	1	1
7	4	1	1
8	3.93	0.96	1
9	3.93	1	1
10	3.80	1	1
11	3.86	1	1
12	3.90	1	1
13	3.90	1	1
14	3.90	1	1
15	3.90	1	1
16	4	1	1
17	3.96	1	1
18	4	1	1
19	3.66	0.83	1
20	3.86	1	1
21	3.86	1	1
22	4	1	1
23	3.83	1	1

*CVI: Content Validity Index; **CVR: Content validity ratio

0.98 (95% CI: 0.96 to 0.99) for the disrespect and abuse questionnaire [Table 4].

Discussion

The present study findings showed that the Farsi version of the disrespect and abuse questionnaire is a valid tool for assessing RMC in Iranian women. The original disrespect and abuse questionnaire consists of 23 items in the seven domains the woman is protected from physical harm or ill-treatment, the woman's right to information, informed consent, and choice/preferences is protected, the woman's confidentiality and privacy are protected, the woman is treated with dignity and respect, the woman receives equitable care, free of discrimination, the woman is never left without care/attention, the woman is never detained or confined against her will.

Table 3: Factor loadings of the disrespect and abuse questionnaire (*n*=265)

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
10	0.635			0.534	
11	0.504			0.641	
21	0.432				
22	0.616				
5		0.273			
6		0.841			
9		0.656			
14		0.656			
15		0.454			
16		0.623		0.516	
17		0.831			
18		0.958			
19		0.825			
20		0.665			
2			0.869		
12			0.870		
13			0.872		
1				0.667	
7				-0.441	
8				-0.339	
3					0.868
4					0.849
23					0.866
% Variance Explained	53.48	9.44	7.16	5.47	4.98

A total of 23 items and five factors were extracted for the Farsi version of the Disrespect and Abuse Questionnaire, and the five factors were labeled abandoning the mother, improper care, mother's immobility, not talking to the mother, and mother's deprivation. The domain of abandoning the mother in the Farsi version corresponds to the domain of the woman who is never left without care/attention in the original version. Continuity of care has been recommended in many studies. It increases satisfaction and improves neonatal and maternal outcomes.[19,20] Mother's deprivation is an item of the ill-treatment domain in the original version of the questionnaire that includes negligence in providing pain relief and a parturient woman's nutritional needs (food and fluid). There has been an emphasis on removing nutritional restrictions for low-risk women in many studies.[21-23] Improper care in the Farsi version of the disrespect and abuse questionnaire includes not answering questions, not introducing yourself, not getting permission, violation of privacy, and not replying politely. This domain and the mother's immobility domain have the same concept as that of the domain of protection of a women's right to information, informed consent, and choice/preferences in the original version. Providing women with information and explanations could help them understand what they need or the future procedures they will undergo.

Although disrespect and abuse presentations are classified into more than one category which is each unique, these categories should be displayed in an overlapping chain-like form.[6] According to Asefa *et al*.,[13] this questionnaire can offer a quantitative approach to the assessment of disrespect and abuse since assessing the prevalence of disrespect and abuse is difficult in the absence of an accurate definition of the concept. The majority of studies assessing disrespect and abuse have been qualitative studies, although there are a few tools that can assess disrespect and abuse quantitatively.[24-26]

Okafor *et al*. (2015)[27] also designed a questionnaire to assess disrespect and abuse in seven main themes. Their

Table 4: Cronbach's alpha and intra-class correlation coefficient of the Iranian version of the Disrespect and Abuse Questionnaire (*n*=20)

Disrespect and abuse scales	Cronbach's alpha	ICC (95% CI)*
"The woman is protected from physical harm or ill treatment"	0.53	0.97 (0.93 to 0.99)
"The woman's right is informed.	0.82	0.95 (0.89 to 0.98)
"The woman's confidentiality and privacy is protected"	------	0.93 (0.83 to 0.97)
"The woman is treated with dignity and respect"	0.53	1.0 (1.00 to 1.00)
"The woman receives equitable care, free of discrimination"	0.55	0.92 (0.80 to 0.96)
"The woman is never left without care/attention"	0.59	0.89 (0.73 to 0.95)
The woman is never detained or confined against her will"	-------	----------
Disrespect and abuse total	0.90	0.98 (0.96 to 0.99)

*ICC: Interclass correlation coefficient

questionnaire had the same concepts as the Farsi version of the disrespect and abuse questionnaire (abandonment of the mother, improper care) and also as that of the questionnaire designed by Asefa *et al*. (physical abuse, abandonment of the mother, non-confidential care, discrimination).[13] Another quantitative dichotomous questionnaire with 'Yes' and 'No' responses was also developed by Abuya *et al*.[24] in Kenya. The disrespect and abuse categories of this questionnaire included detention, corruption, non-consented care, abandonment of care, and non-dignified care, which are all in common with the questionnaire designed by Asefa *et al*.[13]

Vogel *et al*. classified disrespect and abuse into seven categories of physical abuse, verbal abuse (threat, reproach, and verbal aggression), sexual abuse, stigma, confidentiality, poor connection between women and care providers, and bribery and extortion. The common concepts between the Farsi version and the questionnaire of Vogel *et al*.[26] were receiving proper care, not abandoning the pregnant woman, refraining from detention in facilities, respect for the woman's requested delivery position, and attention to her food requests.

The strength of this study was the inclusion of both term and preterm mothers. The study limitations included the selection of women only from among the residents of Tabriz. Reassessment of the questionnaire in rural areas is therefore recommended. Another limitation of our study was that the criterion validity was not assessed because we did not have another questionnaire (gold standard) to compare with the Disrespect and Abuse Questionnaire.

Conclusion

The findings confirmed that the Farsi version of the disrespect and abuse questionnaire is a valid tool for assessing the lack of RMC in the postpartum period. In combination with other reliable tools, this tool can help policy-makers, supervisors, and managers of medical centers and maternity facilities assess instances of disrespect and abuse and provide strategies or interventions for improving the quality of maternity care and the provision of RMC. The common dimensions in various questionnaires around the world indicate that these similar dimensions are the primary principles of RMC.

Acknowledgements

The authors would like to thank the personnel of the healthcare centers of Tabriz and the participating mothers for their willingness to participate in this study (Funding number: 869).

Financial support and sponsorship

Vice-chancellor for Research of Tabriz University of Medical Sciences

Conflicts of interest

Nothing to declare.

References

1. Bowser D, Hill K. Exploring Evidence for Disrespect and Abuse in Facility Based Childbirth: Report of a Landscape Analysis. Bethesda: Maryland: USAID-Traction. Project, Harvard School of Public Health and University Research Corporation, LLC; 2010.
2. Sheferaw ED, Mengesha TZ, Wase SB. Development of a tool to measure women's perception of respectful maternity care in public health facilities. BMC Pregnancy Childbirth 2016;16:67.
3. Dhakal P, Creedy D, Gamble G, Newnham E, Mcinees R. Effects of an online education intervention on nursing students' perceptions towards respectful maternity care. Women Birth 2022;35:52-3.
4. Kruk M PM, Mbaruku G, de Pinho H, Galea S. Women's preferences for place of delivery in rural Tanzania: A population-based discrete choice experiment. Am J Public Health 2009;99:1666-72.
5. Madeira S, Pileggi V, Souza JP. Abuse and disrespect in childbirth process and abortion situation in Latin America and the Caribbean—systematic review protocol. Syst Rev 2017;6:152.
6. Warren C, Njuki R, Abuya T, Ndwiga C, Maingi G, Serwanga J, *et al*. Study protocol for promoting respectful maternity care initiative to assess, measure and design interventions to reduce disrespect and abuse during childbirth in Kenya. BMC Pregnancy Childbirth 2013;13:21.
7. Ross-Davie M. Measuring the Quantity and Quality of Midwifery Support of Women during Labour and Childbirth: The Development and Testing of the 'Supportive Midwifery in Labour instrument'. Vol 13. Stirling, Scotland, UK: University of Stirling; 2012. p. 163.
8. Jafari E, Mohebbi P, Mazloomzadeh S. Factors related to women's childbirth satisfaction in physiologic and routine childbirth groups. Iran J Nurs Midwifery Res 2017;22:219-24.
9. Azami-Aghdash S, Ghojazadeh M, Dehdilani N, Mohammadi M. Prevalence and causes of cesarean section in Iran: Systematic review and meta-analysis. Iran J Public Health J 2014;43:545.
10. Sawyer A, Ayers S, Abbot J, Gyte G, Rabe H, Duley L. Measures of satisfaction with care during labour and birth: A comparative review. BMC Pregnancy Childbirth 2013;13:108. doi: 10.1186/1471-2393-13-108.
11. Hajizadeh KH, Vaezi M, Meedya SH, Charandabi SMA, Mirghafourvand M. Respectful maternity care and its related factors in maternal units of public and private hospitals in Tabriz: A sequential explanatory mixed method study protocol. Reprod Health 2020;17:1-7.
12. Nunnally JC, Bernstein IH. Psychometric Theory. 3rd ed. New York: Mc Graw-Hill; 1994.
13. Asefa A, Bekele D. Status of respectful and non-abusive care during facility-based childbirth in a hospital and health centers in Addis Ababa, Ethiopia. Reprod Health 2015;12:33.
14. USAID: respectful maternity care standards. USAID. 2011. Availlable from: https://www.k4health.org/sites/default/files/RMC%20Survey%20Report.pdf. [Last accessed on 2021 Sep 22].
15. Lawshe CH. A quantitative approach to content validity. Pers Psychol 1975;28:563-75.
16. Hajizadeh E, Asghari M. Statistical Methods and Analysis in Health and Biosciences a Research Methodological Approach Using SPSS Practical Guide. Tehran: Jahad Daneshgahi; 2011.

17. Tinsley HEA, Weiss DJ. Handbook of Applied Multivariate Statistics and Mathematical Modeling. **In: Tinsley HEA, Brown SD, editors**. 1. San Diego: Academic Press; 2000. p. 95-118.
18. Seyf AA. Measurement, Test and Educational Evaluation. Vol 7. Douran: Tehran. 2016.
19. Forster DA, McLachlan HL, Davey MA, Biro MA, Farrell T, Gold L, *et al*. Continuity of care by a primary midwife (caseload midwifery) increases women's satisfaction with antenatal, intrapartum and postpartum care: Results from the COSMOS randomised controlled trial. BMC Pregnancy Childbirth 2016; 16:28.
20. Meedya S, Fahy K, Parrattb JA. The milky way educational and support programme: Structure, content and strategies. Women Birth 2016;29:388-93.
21. Sharts-Hopko NC. Oral intake during labor: A review of the evidence. MCN Am J Matern Child Nurs 2010;35:197-203.
22. Singata M, Tranmer J, Gyte GM. Restricting oral fluid and food intake during labour. Cochrane Database Syst Rev 2010;20:1-59.
23. Iravani M, Zarean E, Janghorbani M, Bahrami M. Women's needs and expectations during normal labor and delivery. J Edu Health Promot 2015;4:6.
24. Abuya T, Ndwiga C, Ritter J, Kanya L, Bellows B, Binkin N, *et al*. The effect of a multi-component intervention on disrespect and abuse during childbirth in Kenya. BMC Pregnancy Childbirth 2015;15:224.
25. Sando D, Ratcliffe H, McDonald K, Spiegelman D, Lyatuu G, Mwanyika-Sando M, *et al*. The prevalence of disrespect and abuse during facility-based childbirth in urban Tanzania. BMC Pregnancy Childbirth 2016;16:236. doi: 10.1186/s12884-016-1019-4.
26. Vogel JP, Bohren MA, Tunçalp O, Oladapo OT, Adanu RM, Balde ME. How women are treated during facility-based childbirth: Development and validation of measurement tools in four countries – phase 1 formative research study protocol. Reprod Health 2015;12:60.
27. Okafor II, Ugwu EO, Obi SN. Disrespect and abuse during facility-based childbirth in a low-income country. Int J Gynaecol Obstet 2015;128:110-3.