The Psychometric Properties of the Persian Version of the Body Image after Breast Cancer Questionnaire

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Background and the objective of the study:Breast cancer (BC) is the first rank between malignancy and fifth among cases of death in Iranian women. Moreover, BC case in Iran were younger than Western countries, but on the contrary, 70% cases were in advantage stage of the disease. BC treatments (including surgery, chemotherapy, radiation therapy, and hormone therapy) are associated with changes in appearance such as breast asymmetry, lymphedema, hair loss, and skin changes. These changes may cause concerns over body image. There are some indicators in cancer's patients that affected body image, high dissatisfied with changes in appearance outcome after treatment/cancer interfered with social situations, romantic relationship, physical activity and caused persistent distress, anxiety and depression. Body image is determined by sociocultural ideals and hence, its criteria vary according to the immediate context. Body image assessment is the first step to the promotion of body image among women with BC. The Body Image after Breast Cancer Questionnaire (BIBCQ) is a BC-specific tool for body image assessment which measures the long-term effects of BC on six different aspects of body image among women with mastectomy or breast-conserving surgeries. The aim of the study was to assess the psychometric properties of the Persian version of BIBCQ.Methods:Study design, ParticipantsThis methodological study was conducted in 2018. Sample size for factor analysis was 400 Participants were conveniently recruited from Shahid Rajaei leading cancer care center, Babolsar, Iran.MeasuresData were collected using a demographic questionnaire and BIBCQ. The BIBCQ assess long term effects of breast cancer on the body image in women with mastectomy or breast -conserving surgery (lumpectomy). The BIBCQ contains 53 items. on six different aspects of body image (vulnerability, transparency, body stigma, arm concerns, body concerns and limitations). AnalysisThe content validity and the construct validity of the questionnaire was evaluated through exploratory and confirmatory factor analyses and its convergent and discriminant validity were evaluated using Fornell and Larcker's approach. The reliability of the questionnaire was also evaluated through Cronbach's alpha and McDonald's omega. Analyses were performed using the SPSS Amos (v. 25.0) and the JASP (v. 0.9.2).Findings:In content validity evaluation, twelve items were excluded and one item was excluded due to a low CVI value. In exploratory factor analysis, five factors (vulnerability, body stigma, body-

related shame, body satisfaction, and physical disability stigma) were identified. Second-order factor analysis showed an overarching concept that labeled "Body image stigma ". The reliability of questionnaire was confirmed.Conclusion:The Persian BIBCQ has an acceptable factor structure in Iranian population and measures the broad concept of "Body image stigma ". This questionnaire can be used for post-BC body image assessment among Iranian women.Implication:Healthcare providers can use the Persian BIBCQ to measure body image among BC survivors and then, develop strategies to promote their coping with BC and improve their quality of life.