Development and Psychometric Evaluation of a Protection Motivation Theory–Based Scale Assessing the Adherence of Iranian Women Breast Cancer Prevention Behaviors

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Abstract

Introduction: Breast cancer is the most common type of cancer that has concerned Iranian women. Early detection is a major determinant of disease prognosis. Thus, participation in prevention behaviors is the only available option for women. The aim of this study was to develop and validate a protection motivation theory (PMT)-based scale for assessing the participation of Iranian women in breast cancer prevention behaviors.

Methods: A sequential exploratory mixed methods design was used. In the qualitative phase, 14 semistructured interviews were done with women. After directed qualitative content analysis, primary items were phrased. Validity of the questionnaire was assessed by a panel of experts, calculation of CVR and CVI, and using confirmatory factor analysis. Reliability of the scale was measured using Cronbach’s alpha. Then, a cross-sectional study was performed on 420 women. The data were analyzed using SPSS 19 and AMOS 16 software packages.

Results: All of the items gained impact scores >1.5 in qualitative and quantitative face validity assessment. In the dimension of content validity, 9 items were deleted. Reliability of the questionnaire was acceptable. The final draft of the questionnaire was prepared in two sections including demographics and PMT constructs comprising 56 items and 8 domains. Factor analysis confirmed the fitness of the model representing the measurement theory.

Conclusion: The present study is a pioneer in assessing the applicability of PMT for assessing the participation of Iranian women in breast cancer prevention behaviors. The developed scale has acceptable psychometric properties among Iranian women, and it can be used as a reliable instrument.

Keywords: Sequential Exploratory Mixed Methods Design, Protection Motivation Theory, Directed Qualitative Content Analysis, Psychometrics, Breast Cancer Prevention Behaviors