



Health Beliefs on the Behavioral Adoption of Mammography Screening: A Path Analytic Model

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Abstract:

Background

Despite the effectiveness of mammography for early breast cancer detection, its' utilization among Malaysian women remains low. This is possibly due to mammography screening being still opportunistic in nature. Conceptualizing screening behavior intentions utilizing Health Belief Model (HBM) is appropriate in understanding behavioral changes. As such, the study utilized HBM constructs in predicting the variance in adaptive behavior of mammography while controlling for moderating effects of knowledge and socio-demographic factors and mediating effects of self-efficacy using structural modeling fit analysis.

Materials and methods

A multi-stage, stratified random sampling method was utilized to select the polyclinics in Kuantan, Pahang. Five hundred and twenty Malaysian women aged between 35 and 70 years were selected randomly using sample size calculation at 5% type 1 error, $p < 0.05$, absolute error at 2%. Sets of the copyrighted, validated questionnaire were used to obtain the data. Structural equation modeling using Mplus was used to test the model. Indirect effects were included iteratively to the path model for evaluating moderating and mediating effects significance.

Results

All health beliefs were found to significantly influence



the behavioral adoption of mammography screening. Socio-demographic factor (married women) were found to moderate significantly the relationship between perceived susceptibility and behavioral adoption of mammography screening. Further, knowledge and "married women" were found to significantly affect self-efficacy. Additionally, perceived severity, motivator factors and perceived benefits were found to significantly influence self-efficacy and that self-efficacy influence the behavioral adoption of mammography screening.

Conclusions

The model can be used as an interventional tool in designing mammography promotional and educational programs to encourage women in Kuantan, Pahang to adopt mammography screening for early breast cancer detection. Additionally, the copyrighted, validated questionnaire can be used throughout the world for early breast cancer detection studies and the development of similar models to reduce breast cancer mortality.