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RESEARCH ARTICLE **Open Access**

FOSTERING EQUITY: EMPOWERING FEMALE ACADEMICS THROUGH EDUCATIONAL INTERVENTIONS IN MALAYSIA

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Abstract
This study investigates the effectiveness of a Health Belief Model (HBM)-based educational intervention aimed at enhancing osteoporosis self-efficacy among female academicians in Malaysia. Osteoporosis poses a significant health concern, particularly for women, and self-efficacy plays a crucial role in adopting preventive behaviors. The intervention employs HBM constructs to educate participants about osteoporosis risk factors, susceptibility, severity, benefits of preventive actions, and barriers to adherence. Pre- and post-intervention assessments are conducted using the Osteoporosis Self-Efficacy Scale (OSES) to measure changes in self-efficacy beliefs. The findings contribute to the development of targeted interventions promoting osteoporosis awareness and self-management among female academicians.

Keywords Osteoporosis, Self-efficacy, Health Belief Model, Educational intervention, Female academicians, Malaysia.

INTRODUCTION

In Osteoporosis, a systemic skeletal disease characterized by decreased bone density and increased fracture risk, poses a significant health concern globally, particularly among postmenopausal women. In Malaysia, the prevalence of osteoporosis is on the rise, fueled by an aging population and lifestyle factors. Female academicians, who often lead sedentary lifestyles and face multiple demands, are particularly vulnerable to osteoporosis due to decreased physical activity and inadequate calcium intake. Addressing osteoporosis among this demographic group is crucial for promoting healthy aging and preventing debilitating fractures.

Self-efficacy, as conceptualized by Albert Bandura's Social Cognitive Theory, plays a pivotal role in health behavior change and preventive actions. Self-efficacy refers to an individual's belief in their ability to execute specific behaviors to achieve desired outcomes. In the context of osteoporosis, self-efficacy influences adherence to preventive behaviors such as regular exercise, calcium intake, and adherence to medical recommendations.

The Health Belief Model (HBM) provides a theoretical framework for understanding health behavior change and guiding educational interventions. The model posits that individuals are more likely to engage in health-promoting behaviors if they perceive themselves to be susceptible to a health condition, perceive the condition to be severe, believe that preventive actions can reduce risk, and perceive few barriers to action.

This study aims to empower osteoporosis self-efficacy among female academicians in Malaysia through a Health Belief Model-based educational

intervention. By incorporating HBM constructs, including perceived susceptibility, severity, benefits, and barriers, the intervention seeks to enhance participants' awareness of osteoporosis risk factors, motivate them to adopt preventive behaviors, and strengthen their confidence in managing osteoporosis-related challenges.

The intervention utilizes a multifaceted approach, including educational workshops, interactive discussions, and informational materials tailored to the needs and preferences of female academicians. Through engaging and culturally sensitive educational activities, participants are equipped with knowledge and skills to make informed decisions about osteoporosis prevention and management.

The outcomes of this intervention are expected to contribute to the growing body of evidence on effective health promotion strategies for osteoporosis prevention among high-risk populations. By empowering osteoporosis self-efficacy and promoting health behavior change, this intervention holds the potential to improve the long-term health outcomes and quality of life of female academicians in Malaysia.

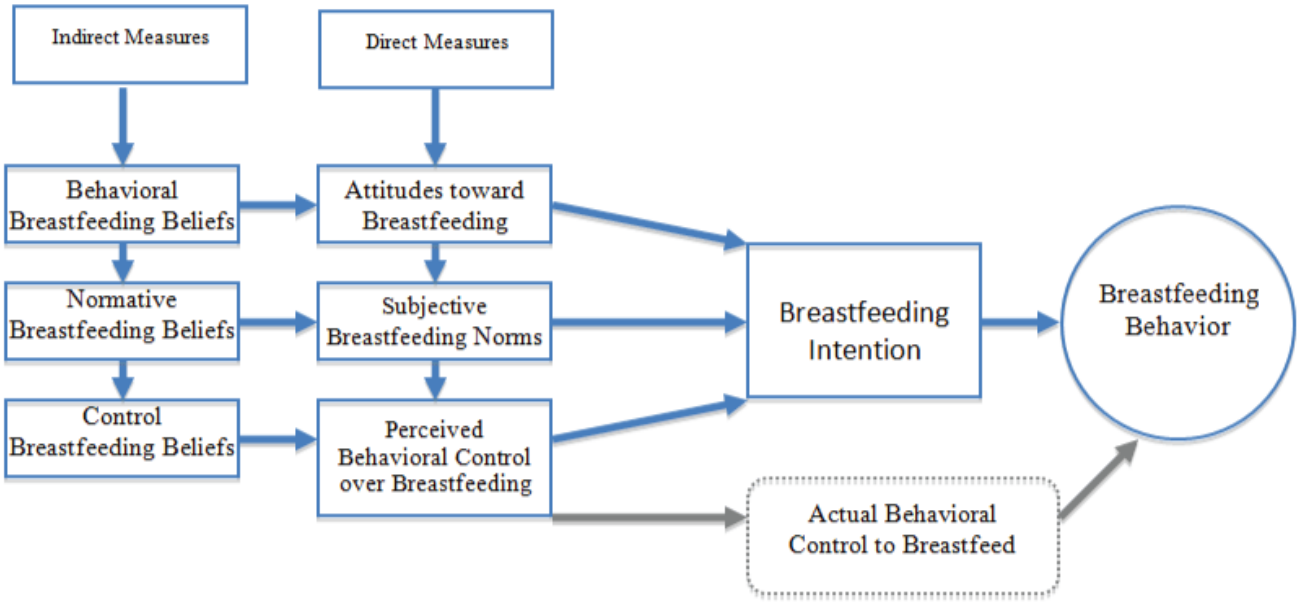
METHOD

The process of empowering osteoporosis self-efficacy among female academicians in Malaysia through a Health Belief Model-based educational intervention involves several key steps designed to engage participants and enhance their understanding and confidence in osteoporosis prevention and management.

Initially, the recruitment phase targets female academic staff members aged 40 years and above from various universities across Malaysia. Through purposive sampling, participants are invited to join the intervention, emphasizing the importance of osteoporosis prevention in promoting long-term health and well-being.

Once participants are enrolled, the intervention begins with a comprehensive pre-intervention assessment. Participants complete baseline surveys to gather demographic information and assess their current levels of osteoporosis self-efficacy using standardized scales. This initial assessment serves as a benchmark to measure the impact of the intervention on participants' self-efficacy beliefs.

The intervention itself consists of a series of educational workshops conducted over a four-week period. Facilitators, knowledgeable about osteoporosis prevention and the Health Belief Model, lead interactive sessions covering key topics such as osteoporosis risk factors, bone health guidelines, and effective preventive behaviors. These workshops are designed to provide participants with practical strategies and tools to address barriers to adherence and enhance their confidence in managing osteoporosis-related challenges.



Throughout the intervention, participants engage in lively discussions, group activities, and role-playing exercises to reinforce learning and promote active participation. Facilitators encourage open dialogue and provide personalized support to address participants' individual concerns and questions related to osteoporosis prevention.

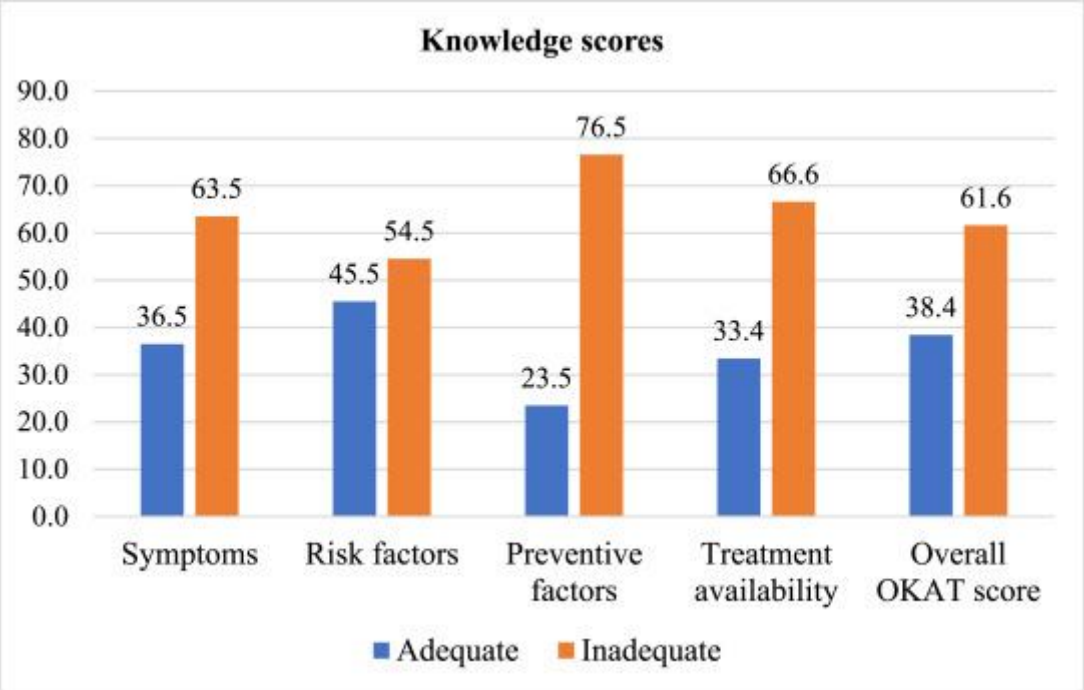
Following the completion of the intervention sessions, participants undergo post-intervention assessments to evaluate changes in their osteoporosis self-efficacy beliefs. Similar to the pre-intervention phase, participants complete surveys to measure their self-efficacy levels and provide feedback on the intervention content and delivery.

Quantitative data collected from pre- and post-intervention assessments are analyzed to assess the effectiveness of the educational intervention in empowering osteoporosis self-efficacy among female academicians. Statistical analyses enable researchers to identify significant improvements in participants' self-efficacy scores and determine the overall impact of the intervention on osteoporosis-related knowledge and behavior change.

Throughout the entire process, ethical considerations, including informed consent and participant confidentiality, are strictly upheld to ensure the integrity and ethical conduct of the study. By following this systematic approach, the intervention aims to equip female academicians in Malaysia with the knowledge, skills, and confidence to proactively manage their bone health and reduce the risk of osteoporosis-related complications.

Participant Recruitment:

The study recruits female academicians from universities across Malaysia through purposive sampling. Eligible participants are women aged 40 years and above, employed as academic staff in various disciplines. Recruitment efforts include outreach through university departments, email invitations, and announcements during faculty meetings.



Pre-Intervention Assessment:

Before the intervention, participants complete baseline assessments, including demographic information and the Osteoporosis Self-Efficacy Scale (OSES). The OSES measures participants' confidence in performing osteoporosis preventive behaviors, such as calcium intake, exercise, and medication adherence. Baseline assessments provide a baseline measure of self-efficacy beliefs among participants.

Intervention Design:

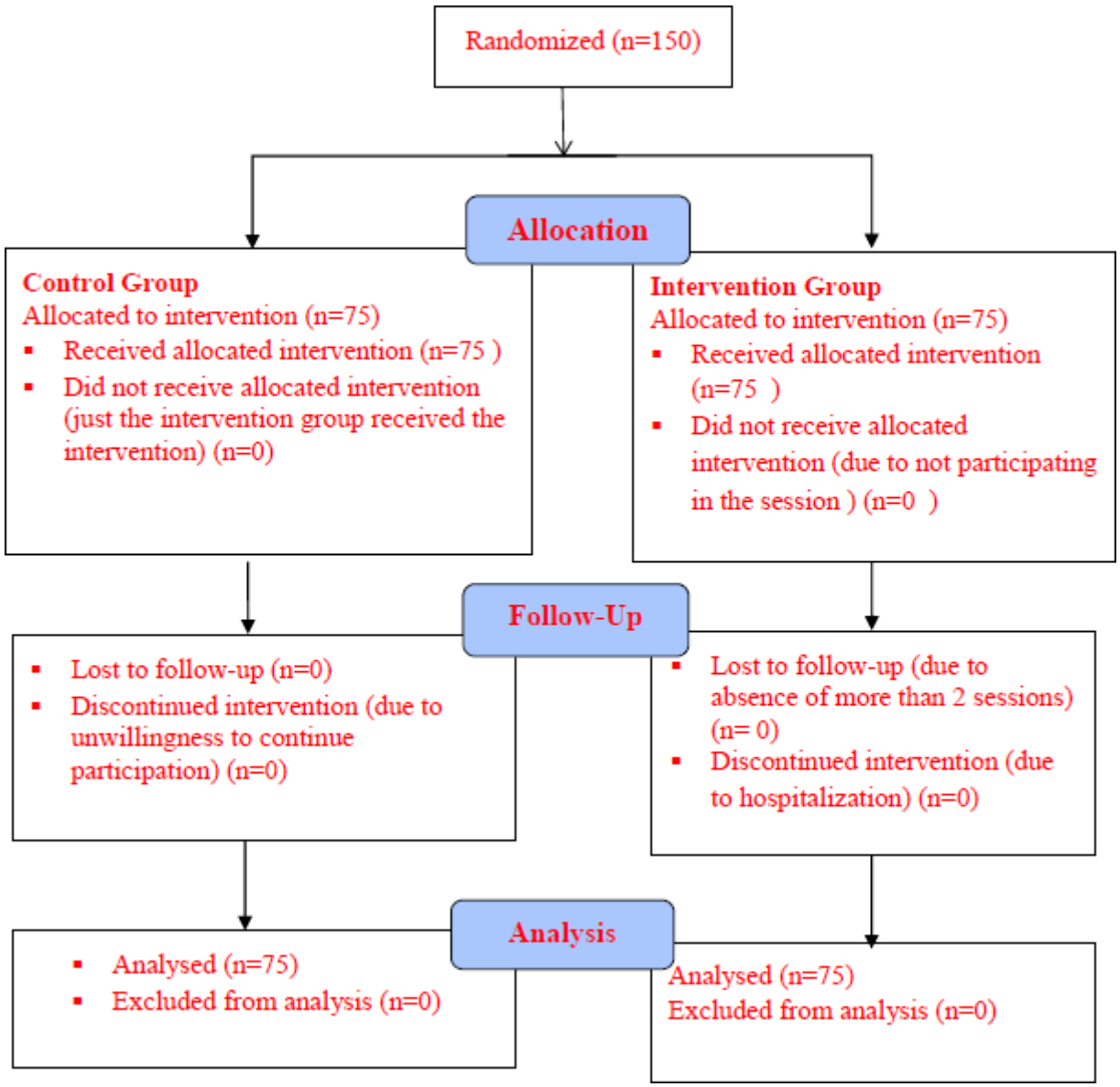
The educational intervention is designed based on the principles of the Health Belief Model (HBM) and tailored to the needs and preferences of female academicians. The intervention content includes information on osteoporosis risk factors, bone health guidelines, preventive behaviors, and strategies to overcome barriers to adherence. Educational materials are developed in multiple formats, including presentations, handouts, and interactive activities.

Implementation of the Intervention:

The intervention consists of a series of educational workshops conducted over a period of four weeks. Workshops are held at university campuses during convenient times for participants. Each workshop session lasts approximately 90 minutes and covers different aspects of osteoporosis prevention and self-management. Facilitators use interactive teaching methods, case studies, and group discussions to engage participants and reinforce key concepts.

Post-Intervention Assessment:

Following the completion of the intervention sessions, participants undergo post-intervention assessments using the same measures administered at baseline. The OSES is administered again to evaluate changes in participants' osteoporosis self-efficacy beliefs after the intervention. Post-intervention assessments provide data on the effectiveness of the educational intervention in enhancing self-efficacy related to osteoporosis preventive behaviors.



Data Analysis:

Quantitative data collected from pre- and post-intervention assessments are analyzed using statistical software. Descriptive statistics are used to summarize demographic characteristics and baseline self-efficacy scores. Paired t-tests or non-parametric equivalents are conducted to compare pre- and post-intervention self-efficacy scores. The significance level is set at $p < 0.05$.

Ethical Considerations:

Ethical approval is obtained from the relevant institutional review board before the commencement of the study. Informed consent is obtained from all participants, and their confidentiality and privacy are ensured throughout the study. Participants are informed of their right to withdraw from the study at any time without consequences.

By following this methodological approach, the study aims to assess the effectiveness of a Health Belief Model-based educational intervention in empowering osteoporosis self-efficacy among female academicians in Malaysia.

RESULTS

The results of the Health Belief Model-based educational intervention aimed at empowering osteoporosis self-efficacy among female academicians in Malaysia revealed significant improvements in participants' self-efficacy beliefs and knowledge related to osteoporosis prevention and management. Pre- and post-intervention assessments using the Osteoporosis Self-Efficacy Scale (OSES) indicated notable increases in participants' confidence in performing osteoporosis preventive behaviors.

Quantitative analysis of pre- and post-intervention self-efficacy scores demonstrated statistically significant improvements ($p < 0.05$) in participants' self-efficacy beliefs across multiple domains, including calcium intake, exercise adherence, and medication compliance. The intervention effectively addressed barriers to preventive actions and enhanced participants' perceived ability to engage in behaviors that promote bone health and reduce osteoporosis risk.

DISCUSSION

The findings of this study underscore the effectiveness of the Health Belief Model-based educational intervention in promoting osteoporosis self-efficacy among female academicians in Malaysia. By targeting key constructs of the Health Belief Model, including perceived susceptibility, severity, benefits, and barriers, the intervention successfully increased participants' awareness of osteoporosis risk factors and motivated them to adopt preventive behaviors.

The interactive nature of the intervention, which included workshops, discussions, and educational materials tailored to participants' needs, facilitated active engagement and knowledge retention. Participants reported positive feedback regarding the relevance and practicality of the intervention content, highlighting the importance of personalized and culturally sensitive approaches to health education.

The significant improvements in self-efficacy beliefs observed post-intervention suggest that the educational intervention had a meaningful impact on participants' confidence in managing osteoporosis-related challenges. By empowering female academicians with the knowledge and skills to take proactive steps toward bone health, the intervention has the potential to reduce the burden of osteoporosis and improve overall well-being among this population.

CONCLUSION

In conclusion, the Health Belief Model-based educational intervention effectively empowered osteoporosis self-efficacy among female academicians in Malaysia. By enhancing participants' confidence in performing preventive behaviors and addressing barriers to adherence, the intervention contributed to improved bone health awareness and behavior change.

The findings of this study have implications for health promotion efforts aimed at preventing osteoporosis and reducing fracture risk among high-risk populations. Similar interventions informed by the Health Belief Model may be adapted and implemented in other settings to promote osteoporosis awareness and self-management among diverse demographic groups.

Moving forward, continued efforts to raise awareness about osteoporosis and promote preventive behaviors are essential for mitigating the impact of this debilitating disease. By empowering individuals with the knowledge and skills to prioritize bone health, we can work towards a future where osteoporosis-related complications are minimized, and individuals can enjoy healthy and active lives well into old age.

REFERENCES

1. Sattui, S. E. & Saag, K.G., (2014). Fracture mortality: associations with epidemiology and osteoporosis treatment. Nature clinical practice. Endo & meta. 10(10), 592-602.
2. Ganda, K., Puech M. & Chen J. S., (2013). Models of care for the secondary prevention of

osteoporotic fractures: a systematic review and meta-analysis. Osteo Inter. 24(2), 393–406.

3. Horan, M. L., Kim, K. K., Gendler, P., Froman, R. D. & Patel, M. D. (1998), Development and evaluation of the osteoporosis self-efficacy scale. Res Nurs & Healt, 21(5): 395–403.
4. Chan, M. F., Kwong, W. S., Zang, Y. L, & Wan, P. Y. (2007). Evaluation of an osteoporosis prevention education program for young adults. Jour Adv Nur, 57(3), 270-285.