



Development of Aging Treatment Model to improve self-management of menopause women: An effort to achieve SDGS goal[☆]



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Received 12 May 2020; accepted 15 July 2020

KEYWORDS

Aging Treatment Model;
Self-management;
Menopausal women

Abstract Aging process in menopausal women is an effect of estrogen deficiency. It will cause physical changes in vasomotor instability such as hot flushes, decreased immune system, vertigo, nausea, insomnia, and palpitation. Sexual problems also occur during menopause, such as vaginal infection, dyspareunia, painful intercourse, and decreased libido. The psychological changes also reported in menopause women. They tend to have low self-esteem and decreased memory that affects their daily social interaction. The study explained a new concept, called Aging Treatment Model, for menopausal women so they can deal with physical, psychological and sexual changes during menopause. The Quasi-Experimental with pre and post-test design and control group used in this study. A total of 230 menopause women in 5 cities in Indonesia were recruited. The data analyzed by using Mc Nemar and Chi-Square test. The result showed that the Aging Treatment Model had a significant impact on self-management to solve physical ($p < 0.001$), psychological ($p < 0.001$), and sexual ($p < 0.001$) problems among women in the experimental group compared with the control group. By using the Aging Treatment Model, health care providers can help menopausal women to build self-management. A better treatment will make a better quality of life and is a key aspect to achieve the health Sustainable Development Goals.

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[☆] Peer-review under responsibility of the scientific committee of the International Nursing Research Conference of Udayana University. Full-text and the content of it is under responsibility of authors of the article.

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Introduction

Success of development programs in health, social, and economic fields in a country will have a positive impact on nutritional status and will increase the life expectancy of its people. It leads to increase the elderly population. The growth population number of elderly is taken as a new challenge especially for health workers and health service providers. Hence, the primary goal is to make sure the aging process does not have any impact on the health status of the elderly due to decreased organ function¹⁷.

The aging process on women occurs due to estrogen hormone deficiency which causes menopausal conditions. Meanwhile, the aging process in man happened during the elderly, when hormone andropause by the hormone testosterone started to decrease.

According to Bobak and Jensen,¹ menopause happened in several stages. First, perimenopause, which will cause vasomotor instability. A woman will experience hot flushes, night sweats, fever, rush pulse, moody, decreased immunity, vertigo, nausea, insomnia, and palpitations. Second, during menopause urinary system will change automatically. Some problems like vaginal infection, dyspareunia, painful intercourse, decreased libido, dysuria, vaginal atrophy, polyuria, and hematuria will be experienced by a woman in this stage. Last, postmenopause, which will affect heart and bones, such as osteoporosis.

Physical changes in menopausal women unavoidably affect psychologically. Several issues reported by Holloway² such as anxiety, nervousness, sensitive emotionally, confusion, depression, forgetfulness, difficult to concentrate, low self-esteem, and decreased memory. In some severe cases, those symptoms ruin their interaction in family and community.

According to the issue, Pangkahila³ identified in his study about how menopausal women could achieve a healthy and quality of life. They suggested that health care providers can focus not only on the disease during aging but also on preventing the disease itself. An alternative way as a preventive approach is the modification of non-pharmacology.

To provide solutions for menopausal women, the researchers made a nursing intervention Aging Treatment Model, which focused on health education programs to create a new understanding for menopausal women related to knowledge, attitudes, and skills in overcoming the problems of menopause. This new understanding was related to increasing knowledge and growing their awareness in solving their physical, sexual and psychological problems during menopause.

This study designed an Aging Treatment Model for menopausal women and assesses its effectiveness. By using this model, menopausal women could increase self-awareness, understanding, and ability to live more healthy, independent and prosperous. Thus, they could have better interaction and performance in the community with culture values, lifestyle and family support.

Methods

The study used a quasi-experimental (pre and post-test) with a control group and a quantitative approach in menopausal

women. This was a framework of Aging Treatment Model on participants

Experimental	O ₁	→	O ₂
Control	O ₁	→	O ₂

A total of 230 menopausal women were recruited in this study, then divided into 2 groups, experimental and control groups. This study held in 5 cities: Jakarta, Bogor, Depok, Tangerang, and Bekasi for several weeks. The consecutive sample conducted during sample selection. We had several inclusion criteria during the recruitment, such as (1) woman in menopausal stage, (2) having spouse/partner, (3) physically and mentally healthy, (4) without any complication disease history, (5) can read and speak Bahasa Indonesia.

To determine the geographical area, a cluster sampling technique is used in this study. Random selection of samples in the group of menopausal women in the population with several stages by following the geographical area and further random sampling was carried out to determine the experimental and the control group. The ethical clearance issued by Faculty of Nursing at the Muhammadiyah University of Jakarta. Informed consent also provided due to ethical considerations.

The validity test on the instrument was compared to the value of *r* table with *r* count. The value of *r* table was $df = n - 2$ (n_{30} , $df = 28$) at α 5%. Hence, the *r* table value = 0.361. The reliability test was using a covariance item procedure with a Cronbach's Alpha formula of more than 0.8, which concluded that the instrument used showed a very small error so that it could be used in measurements.

Results

Table 1 above shows the results of both groups after being given the Aging Treatment Model. In the experimental group, there was some increasing number significantly among the variables due to solve their physical (77.4%), sexual (68.7%) and psychological (89.6%) problems. On the contrary, the control group seemed to decrease the number slightly.

Another finding in this study (Table 2) was the significant impact of the Aging Treatment Model among menopausal women due to improving self-management in physical ($p = 0.000$), sexual ($p = 0.000$), and psychology ($p = 0.000$). However, the result of the control group seemed to have otherwise.

Table 3 above explained the result differences among both groups. The Aging Treatment Model had a significant impact on the experimental group compared with the control groups. It means that participants who got the Aging Treatment Model felt some changes to solve the physical ($p = 0.000$), sexual ($p = 0.000$), and psychological ($p = 0.000$) problems during the study.

Discussion

The results of the experimental group showed that there were differences before and after being given the Aging Treatment Model intervention. The model helped them to improve self-management so they could improve knowledge, attitudes, and skills in dealing with physical, sexual, and psychological problems during menopause. It supported

Table 1 Frequency distribution of aging treatment model on self-management among menopausal women.

Variables		Experiment (n = 115)				Control (n = 115)			
		Pre		Post		Pre		Post	
		n	%	n	%	n	%	n	%
1	Physical	44	38.3	89	77.4	65	56.5	61	53
2	Sexual	37	32.2	79	68.7	49	42.6	44	38.3
3	Psychological	42	36.5	103	89.6	56	48.7	59	51.3

Table 2 Aging treatment model on self-management among menopausal women.

Variables		Experiment (n = 115)					Control (n = 115)				
		Pre		Post		p	Pre		Post		p
		n	%	n	%		n	%	n	%	
1	Physical	44	38.3	89	77.4	0.000	65	56.5	61	53	0.210
2	Sexual	37	32.2	79	68.7	0.000	49	42.6	44	38.3	0.340
3	Psychological	42	36.5	103	89.6	0.000	56	48.7	59	51.3	0.250

Table 3 Comparison of aging treatment model on self-management among menopausal women.

Variables		Groups				p
		Experiment (n = 115)		Control (n = 115)		
		n	%	n	%	
1	Physical	89	38.7	61	26.5	0.000
2	Sexual	79	34.3	44	19.1	0.000
3	Psychological	103	44.8	59	25.7	0.000

by Schilling et al. (2009)⁴ study, which mentioned that decision making on health and well-being are through increasing the knowledge, attitudes, and skills. Newman et al.⁵ also mentioned that health education significantly increases knowledge, behavior, emotional, and skills.

The Aging Treatment Model is not only able to identify problems experienced by menopausal women but also can improve the ability to overcome the problems of menopause. Its effectiveness on menopausal women could see by the differences before and after the intervention on the ability to solve some physical, sexual, and psychological problems. The model helped them to identify and understand the problems that they had, then know how to cope with the situation. Hence, those processes affect their quality of life. Jerant et al.⁶ and Paradis et al. (2010) also explained in their studies that the most principal in self-management is the confidence to deal with health problems.

The target of the Aging Treatment Model is to improve self-management among women during menopausal stages. Intervention group respondents showed an increase in skills in dealing with physical, sexual and psychological problems during menopause every week. Increased ability of menopausal women is evidenced by the ability of menopausal women to carry out activities of identification,

supervision, and countermeasures due to physical, sexual and psychological changes in menopause.

Setiadji,⁷ identified the particular changes in self-management during menopause were influenced by lifestyle, cultural and spiritual values, and the relationship among family, community, and health care professionals. Lifestyle factors and cultural values of menopausal women also influence the successful implementation of "Management Aging" to overcome the physical, sexual and psychological problems of menopause. Thus, those factors also affect the success of the Aging Treatment Model due to solving the physical, sexual, and psychological problems during menopause.

The solution to managing the menopausal problems is: (1) physical problems can be reduced by light exercise to rejuvenate bones and muscles. Also, being selective in preparing nutritional intake, such as increasing the consumption of water, milk, fibrous vegetables, and fruits; (2) sexuality problems can be managed by training the *pubococcygeus* muscle in the vagina to be more sensitive to stimulate blood circulation. Also, it can ease the release of lubrication and reduce pain during sexual intercourse; and (3) psychological problems can be solved by control emotion and know the self-strengths and weaknesses (Holway, 2007).⁷⁻¹⁴

When menopausal women identifying, eliminating, and solving the problems, it means that they already improving their self-management. The high appreciation from families and communities will follow. The achievement can motivate them to have a quality of life during menopausal stages.^{15,16}

Conclusion

The Aging Treatment Model in this study could improve self-management among menopausal women to prevent themselves from physical, sexual, and psychological changes. It also helped them to solve those particular problems independently without relying on the facilitator. They got the indicator to achieve their goals in improving self-management, so they understand what were they doing or whether they did the right thing or not.

The Aging Treatment Model was safe, effective, and efficient to do on menopausal women to increase their quality of life. The importance of this model is involving the health care provider's role, especially in the public health setting.

Conflict of interest

The authors declare no conflict of interest.

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