

## **PENELITIAN**

**The design of aging treatment model toward menopause women in order to develop the ability of self management to accomplish SDGs in**

**JABODETABEK area**

**Irna Nursanti\*, Dedi Muhdiana\*, Idriani\*,**

**Faculty of Nursing, Muhammadiyah of Jakarta**

**E-mail: [irnanursanti.fik@gmail.com](mailto:irnanursanti.fik@gmail.com)**

### **ABSTRACT**

The increasing phenomenon of female pre menopausal women and the inability to meet the needs due to physical, sexual and psychological changes in menopause. The purpose of the study are: to determine the effect of intervention "Aging Package " to meet the needs of physical, sexual and psychological in menopausal women in East Jakarta. The design of this study was Quasi Experimental pre-and post-test with control group. Data collection is done quantitatively is to obtain the results more accurate because the data reinforced the quantitative results outcome data. The sample size in this study is 219 people, to the intervention group and the control group. Results of the study are: physical needs are met (54.4%), sexual (76.9%) and psychological (84.2%) before and after pemberian "package sheen twilight". There are differences in physical needs ( $p_v = 0.041$ ), sexual ( $p_v = 0.000$ ) and psychological (0,001) in the group given "Aging package" with a control group that was not given "package Aging". "Package Aging" able to meet the physical needs (71%), sexual (59%) and psychology (67%) and the rest is influenced by cultural values (29%), lifestyle (41%), and knowledge (33%). Recommendations "Aging package must be socialized to the health workers and the community to improve the knowledge and skills of self-management during menopause.

Keywords: aging packages, self-management, self-care ability

## Introduction

A country's development strategies, which include health, social and economic development program, have positive impacts on the nutritional status and life expectancy rate of the community. It will cause increasing size of the elderly population (Ministry of Health, 2013). According to the Center for Statistics (BPS), the estimation of elderly population was 9.77% of total citizens in 2010 and they predict that the number will become 11.34% in 2020 with a predominant female elderly population (Ministry of Women Empowerment, 2009).

The growing size of the elderly population has brought new challenges to health care personnel and health care providers for the elderly so that the aging process will not affect their fragile health status due to the reduced organ function, increasing age or disease (Ministry of Health, 2013)

There are some explanations associated with aging as mentioned by Pangkahila (2007); Tagliaferri (2006); Cohen (2006); Tripathy, (2006), who suggested on how a human being can be healthy and have a high quality of life in spite of the increasing age and the health care providers do not focus their orientation anymore on problems and diseases caused by the aging process.

The aging process will be experienced both by women and men; the difference is that women have the aging process due to deficiency of estrogen hormone that may develop a condition called menopause [Bobak (2004)]. According to Martin (2003); Bobak (2004); Ladewig (2000); London (2000); Olds (2000); Jensen (2005), menopause is when the periods stop naturally in women between the age of 40-55 years. The process of menopause takes place in several stages, i.e. (1) the early stage when menopause will cause unstable vasomotor symptoms so that the body experiences hot flushes, night sweat, shivering, increasing pulse rate, unexplained feeling, reduced immune response, vertigo, nausea, insomnia and

palpitation; (2) At the middle stage of menopause, there are changes on urinary system, in which there is a susceptibility for vaginal infection, dyspareunia, bleeding, post-coital sores, reduced libido, dysuria, vaginal atrophy, excessive urination, bleeding after urination, unable to hold urination, feel itchy or reduced sensation on skin, bleeding and discomfort feeling; (3) The late stage of menopause is the period when some cardiac problems and osteoporosis may occur (Abernethy, 2003; Satoh, 2005; Holloway, 2007).

Physical changes in menopausal women may also cause impacts on psychological problems such as feeling worry, nervous, anxious, easily irritated, confused, stressed out, forgetful, having difficulty to concentrate, easily exhausted, reduced self-esteem, reduced memory capacity, which will affect their ability to have interactions in their family and society (Holloway, 2007).

In their daily life, menopausal women have to deal with some situations that may escalate the impacts of psychological problems as there is a stigma that defines menopausal women as non-productive and have limited range of activity. In Javanese society, for example, problems associated with sexuality are something taboo to be discussed and there is an assumption that menopausal women are old women and therefore, they are not worth to sleep together in the same room with their spouse and they do not need sexual intercourse and therefore, menopausal women tend to be closer with their grandchildren instead with the husband. (Kuntjoro, 2002).

## **Method**

The design of our study was quasi experimental including pre and post-test with control group. Measuring quantitative data before and after the intervention (pre- and post-test) was conducted by using questionnaire.

The study was conducted at 10 District Public Health Centers (Puskesmas) in the working area of Health Agency of East Jakarta. The determination of subjects in interventional and control group was performed using the random sampling techniques at the 10 District Public Health Centers in the East Jakarta area, i.e.: (a) The intervention group consisted of the Public Health Centers at Jatinegara Matraman, Pulogadung, Cakung, and Duren Sawit districts; while (b) the control group consisted of Public Health Centers at Makasar, Kramat Jati, Pasar Rebo, Cipayung and Ciracas districts. The sample size of our study was 291 respondents with 158 subjects in the intervention group and 133 subjects in the control group.

Data was analyzed using homogeneity test between intervention and control group. Univariate analysis was conducted to describe each variable that would be measured in the study, i.e. by evaluating the data distribution of all variables such as age, educational level, religion, occupation and ethnicity. Bivariate analysis was performed to identify different ability to overcome physical, sexual and psychological problems after receiving "Aging Package" in the intervention group and the control group did not receive the package.

## Result

### The Effect of “Aging Package” on the Comprehension about Physical, Sexual and Psychological Problems Before and After Receiving Intervention of “Aging Package”

**Table. 1**  
**Different Knowledge on Physical, Sexual and Psychological Problems Before and After Treatment in Respondents of**  
**n=158**

Variables	Intervention		<i>p</i>
	% of Correct Answer		
	Before	After	
1 Score of knowledge on menopausal physical problems	70.15	91.98	0.401
2 Score of knowledge on menopausal sexual problems	54.11	97.15	0.281
3 Score of knowledge on menopausal psychological problems	33.23	92.41	0.442

Table 1 shows that in the five Public Health Centers in East Jakarta districts, there was different knowledge on physical, sexual and psychological problems in the intervention group before and after receiving the “Aging Package”.

**Table. 2**  
**Different Attitude on Physical, Sexual and Psychological Problems Before**  
**and After Treatment in Respondents of**  
**n=158**

Variables		Intervention		<i>p</i>
		% Yes		
		Before	After	
<b>Total Score of Attitude on Physical Problems</b>	$\bar{x}$	80.29	97.42	<b>0.006</b>
	S	0.459	0.425	
<b>Positive Attitude</b>	%	29.75	76.58	
<b>Negative Attitude</b>	%	70.25	23.42	
<b>Total Score of Attitude on Sexual Problems</b>	$\bar{x}$	80.76	96.77	<b>0.020</b>
	S	0.471	0.412	
<b>Positive Attitude</b>	%	32.91	78.48	
<b>Negative Attitude</b>	%	67.09	21.52	
<b>Total Score of Attitude on Psychological Problems</b>	$\bar{x}$	81.96	99.37	<b>0.001</b>
	S	0.476	0.372	
<b>Positive Attitude</b>	%	34.18	83.54	
<b>Negative Attitude</b>	%	65.82	16.46	

Table 2 shows that in the five Public Health Centers in East Jakarta districts, there was different attitude on physical, sexual and psychological problems in the intervention group before and after receiving the “Aging Package”.

**Table. 3**  
**Different Skills to Overcome Physical, Sexual and Psychological Problems**  
**Before and After Treatment in Respondents of**  
**n=158**

Variables		Intervention		<i>p</i>
		% Yes		
		Before	After	
<b>Total Score of Skills on Physical Problems</b>	$\bar{x}$	68.99	79.13	<b>0.010</b>
	s	0.497	0.412	
<b>Skillful</b>	%	43.04	78.48	
<b>Not Skillful</b>	%	56.96	21.52	
<b>Total Score of Skills on Sexual Problems</b>	$\bar{x}$	68.59	79.31	<b>0.040</b>
	S	0.476	0.443	
<b>Skillful</b>	%	34.18	73.42	
<b>Not Skillful</b>	%	65.82	26.58	
<b>Total Score of Skills on Psychological Problems</b>	$\bar{x}$	66.27	76.53	<b>0.003</b>
	s	0.487	0.398	
<b>Skillful</b>	%	37.97	80.38	
<b>Not Skillful</b>	%	62.03	19.62	

Table 3 shows that in the five Public Health Centers in East Jakarta districts, there was different skills to overcome physical, sexual and psychological problems in the intervention group before and after receiving the “Aging Package”.

**The Effect of “Aging Package” on the Ability to Overcome Physical Problems in the Intervention and Control Group**

**Table. 4**  
**Different Ability to Overcome Physical Problems between the Intervention Group Receiving the “Aging Package” and the Control Group with No Package n=291**

	Group		<i>p</i>
	Intervention (%)	Control (%)	
Before	23.7	26.5	0.000
After	48.5	30.2	

The results of statistical test indicated that the intervention and control group were different significantly ( $p= 0.000$ ) in dealing with physical problems after receiving the “Aging Package” and therefore, the null hypothesis was rejected with  $p < 0.05$  as the package may have role in increasing the ability of menopausal women to overcome their physical problems.



**The Effect of “Aging Package” on the Ability to Overcome Sexual Problems in the Intervention and Control Group**

**Table 5**  
**Different Ability to Overcome Sexual Problems between the Intervention Group Receiving the “Aging Package” and the Control Group with No Package**  
**n=291**

	Group		<i>p</i>
	Intervention (%)	Control (%)	
Before	26.5	26.8	0.000
After	47.1	30.9	

The results of statistical test indicated that the intervention and control group were different significantly ( $p= 0.000$ ) in dealing with sexual problems after receiving the “Aging Package” and in other words, the package may have role in increasing the ability of menopausal women to overcome their sexual problems.

## The Effect of “Aging Package” on the Ability to Overcome Psychological Problems in the Intervention and Control Group

**Table 6.**  
**Different Ability to Overcome Psychological Problems between the Intervention Group Receiving the “Aging Package” and the Control Group with No Package**  
**n=291**

	Group		<i>p</i>
	Intervention (%)	Control (%)	
Before	22.7	27.1	0.000
After	47.8	26.8	

The results of statistical test indicated that the intervention and control group were different significantly ( $p= 0.000$ ) in dealing with their psychological problems after receiving the “Aging Package”. In other words, the package may have role in increasing the ability of menopausal women to overcome their psychological problems.

### Discussion

#### The Effect of “Aging Package” on the Ability to Overcome Physical, Sexual and Psychological Problems in Menopausal Women

“Aging Package” is an integration of a theory concept about self care from Orem (2001) and self management from Richard and Shea (2011), which has increased the knowledge, attitude and skills of menopausal women in self management and has grown the self esteem to increase their self ability to overcome physical, sexual and psychological problems during menopause that occur due to deficiency of estrogen hormone.

The integration of the theory concept has provided evidences that the “Aging Package” can increase the ability of menopausal women including the knowledge, attitude and skill to overcome physical, sexual and psychological problem during menopause. The data is supported by the concept and theory (Scilling; Grey, 2002; Knafl, 2002) that explains that the decision making to conduct the self control on health and welfare issues is determined through increasing the existing knowledge, attitude and skills. Notoatmodjo (2003) suggests that knowledge is a very important domain in developing someone’s action (over behavior). To be skillful, one has to go through training process and learn earnestly to master, comprehend and apply the skill. Notoatmodjo also explains that the skills will be better with practice and training, which will increase the ability that lead to mastering the skills as an expert of a specific skills or to be skillful. The intervention of “Aging Package” has been demonstrated to be successfully assisting menopausal women in increasing their ability to overcome physical, sexual and psychological problems during menopause. The successful results bring positive effect including the self esteem in self efficacy in menopausal women to continuously perform self management action to overcome problems during menopause; therefore, it may affect their quality of life.

The explanation is supported by Clark, Becker, Janz, Lorig, Rakowski, & Anderson, 1991; Gallant, (2003), who describe that the central role of self management is the presence of growing interest to manage the risk of change to control disease progression. The results obtained from the self management program are behavioral changes toward health and self-efficacy (self esteem in the ability to overcome health problems).

Data about the self esteem on one’s ability (self efficacy) in menopausal women to perform skillful activities in self management are shown by the supervision graph and results they have experienced the benefits of “Aging Package: and they have

been motivated to continue and apply the package henceforward; moreover, some of them are encouraged to provide information and counseling about “Aging Package” to their friends and family.

In addition to the achievement of individual success, it also has impacts on the success of menopausal women community, in which the group will have reduced morbidity rate as well as the dependency rate on the health care providers. The statement is consistent with some study results using the theory concept of self management from Newman; Steed; Mulligan, 2004 suggesting that one can maintain a satisfactory quality of life when he/she has the cognitive, behavioral and emotional ability required to maintain the quality of life that brings satisfaction in life. Howyida; Elhameed; Abeer; Mahdy (2012) explain that education on health issues significantly increases the ability of self care and upgrades the knowledge, attitude and skills on self-care management at home. The next study is the study conducted by Group Health Cooperative of Puget Sound (1998), which carried out 7-week intervention and aimed to evaluate the results of self management program. The results of the study demonstrate that health behavior and self-efficacy (self esteem) in dealing with health issues, health status and using health care services can reduce the number of visits to outpatient units and the length of stay in the hospital.

Focusing the orientation on the length of study period conducted by Group Health Cooperative of Puget Sound (1997), which has achieved results of behavioral changes on health status evaluated based on the reduced dependency rate on the health care providers, we used the study as a reference to determine the length of intervention for providing “Aging Package” and 14 weeks were determined as the length of time that may affect behavioral changes, i.e. the self esteem on the ability to perform skillful management on self care (self management) to overcome physical, sexual and psychological problems during menopause.

The “Aging Package” given for menopausal women contains educational material on knowledge about menopause phase, attitude and skill for self management, i.e. (1) the skill to do self monitoring on nine physical problems, four sexual problems and five psychological problems, which are the risks for disease progression on the function of the body; (2) the skill to perform self controlling, which focus on self-care actions by doing skillful procedures to overcome nine physical problems, four sexual problems and five psychological problem; (3) the skill to perform evaluation of self achievement (self rewards) on nine physical problems, four sexual problems and five psychological problems, by referring to the indicators for evaluation of self achievement; moreover, this explanation is supported by Barlow et al.,( 2002); Wilkinson & Whitehead(2009).

The skills of self controlling performed by the menopausal women are aimed to increase the ability to overcome physical, sexual and psychological problems, i.e. (1) the skills to do work out for training the muscles, bone and joints; (2) the skills to train pubococcygeus muscle in the vagina so that it becomes more sensitive and responsive to stimulation in order to increase blood circulation to the sex organ and facilitate lubrication and reduce the pain in order to complete all of phases in sexual response well; (3) the comprehension about selecting well-balanced nutrition by increasing the intake of plain water, milk, vegetables and fruits containing high fiber; (4) the ability to perform self care traditionally, which is not contraindicated for the body. The explanation of such exposition is supported by theories and concepts proposed by some authors (Holoway, 2007; Albertnety, 2003; Satoh, 2005; Wirakusumah, 2004; Orem, 2001; Tagliaferri, 2006; Setiadji, 2011; Bandura, 1997; Richard and Sea, 2009; Peterson and Bredow, 2004 )

The skillful act performed by menopausal women physiologically stimulates the predominant estrone hormone during the menopause, which is still being produced for 12 years by the adrenaline gland, fat cells and liver. The stimulation induced by estrone hormone will affect the body neurotransmitters, i.e. endorphine, serotonin,

and dopamine, which are the brain chemical system with a function of carrying messages from organs and glands to the brain and vice versa (Setiadji, 2011; Tagliaferri, 2006). Endorphine as neurotransmitter may have role on reduced estrogen hormone that can affect the perception of pain, body temperature, breathing, appetite, blood pressure, memory and sexual behavior. Serotonin may have role on mood and sleeping activity; while dopamine may affect emotion, immune system, motivation and sexual behavior. Moreover, it can reduce the LDL (*Low Density Lipoprotein* / bad cholesterol) serum level, which is a risk factor for heart disease and stroke. It also increases calcium absorption and reduce dyspareunia during the intercourse with the spouse. (Kevan Richard, 2009; Pertamawan, 2002).

The explanation is supported by results of studies conducted by Bourbeau; Julien; Maltais; and Rouleau (2013), which demonstrated that self management through therapeutical communication can reduce the number of patient visits to hospital. Other results of study that support the explanation is the one according to Miller and Wood (2012), which showed that self management can reduce asthma attack and mortality rate. Mesters et al. (2001) found that patients with asthma can increase their self esteem (self efficacy) after receiving educational material on health issues. Other relevant studies are the results of studies conducted by Newman; Steed; Mulligan, (2004) dan Howyida, Elhameed, Abeer & Mahdy, (2012) by using similar design, i.e. the quasi experimental study. The results of those studies explained that effective intervention of self management may affect cognitive, behavioral and emotional responses to maintain the quality of life and significantly increases the knowledge and practice following the health education.

Schreurs (2012) also supported our study results by providing evidences that the intervention of self management can encourage patients to: (1) Perform activities that promoting health and welfare, such as healthy behavior (such as exercise and healthy diet); (2) Minimize negative effects of disease in their life; (3) manage the

impacts of negative emotion on symptoms; (4) take active role for their own health through developing partnership with the health care professionals.

Lorig & Holman (2003) also supported our study results and showed that the optimal self management must be based on three core skills, i.e. (1) the skill to perform self monitoring to discover the problems and selecting appropriate act; (2) the skill to select information about treatment for herself and developing partnership with the health care providers instead of being the passive receiver of health care service; (3) the skill to take appropriate action for behavioral changes and mastering new skills that may contribute to self esteem (self efficacy). The skill to perform self management with a central concept of self efficacy, which is the self esteem to perform skillful self management to achieve the desired aims (Bodenheimer; Lorig; Holman; Grumbach, 2002). Patient's ability to solve problems that they have encountered during menopause will increase the self efficacy. The goals of providing "Aging Package" are: having self efficacy or high self esteem to perform self care through relevant self monitoring and self controlling to overcome physical, sexual and psychological problem and at the end of the self-management actions, there are positive behaviors, thought and feeling. The development of positive behavior is carried out by identifying, eliminating and changing the reflected issues and directly changing the emotion to deal with physical, sexual and psychological problems that may give a high self reward for menopausal women from their family and the community, which may directly motivate the women to continuously improve and increase the quality of their skills in performing self management (Barlow et al., 2002; Bodenheimer et al., 2002; Chodosh et al., 2005; Lorig, Ritter, & Plant, 2005; Clark, Becker, Janz, Lorig, Rakowski, & Anderson, 1991; Gallant, 2003).

The statements explained by the experts are the basic concept for developing "Aging Package", which is oriented to the cognitive-behavioral therapy skills including the self monitoring on: (1) The ability to perform the monitoring on

physical, sexual and psychological problems; (2) the ability to perform self controlling, i.e. the ability to be responsible to change or develop positive behavior on external and internal stimulus that may become risk factors for disease progression; (3) the ability to perform evaluation on the activities that have been done and carry out positive reinforcement (self reward) to develop new strategies on the alteration and development of behavior in menopausal women (Thorne et al., 2003; Unger & Buelow, 2009).

Orem (2001) explains that one of the developmental task of the elderly age is to have the ability overcome any defect of health issues (Health Deviation Universal Self Care Requisite) as the results of reduced physical strength, diminished health and lower income. In order to bestow the ability to overcome defects in health issues, the “Aging Package” offers a new strategy, awareness, hope and implication on the essential individual activities to be self autonomy, which is based on knowledge and skills as the principles to overcome problems during the menopause.

In the “Aging Package”, we believe that basically the learning process is unceasing, particularly for adults. The approach of life-long learning (continuity learning) is carried out to improve knowledge, to change attitude and behavior of menopausal women; while the approach of training is conducted to improve skills. Both are strategies to apply the “Aging Package” to real implementation by considering the following issues: (1) learning is the experience desired by the adults themselves; therefore, they need to be motivated to find the current knowledge, as well as new skills and attitude; (2) the adults learn when they find meaningful advantages for themselves and any issue that correlates with their needs.

Bandura (1997) confirms the explanation that to achieve certain goals, an individual must have self esteem (self efficacy) through learning process along with



persistence, resilient endeavors and “try and try again” when dealing with any task in order to achieve successful goals. In the studies that provide “Aging Package” for menopausal women, we understand that when the concept of long-life learning (continuity learning) is combined with the self esteem on self ability (self efficacy), the menopausal women have the potential ability that may increase their ability, which is based on knowledge and learning to perform skillful self management in order to overcome physical, sexual and psychological problems.

### **Conclusion and Suggestion**

“Aging Package” is a health educational material for menopausal women to overcome problems during menopause, including physical, sexual and psychological problems.

The underlying concept for composing the “Aging Package” are the concept and theory of self care proposed by Orem (2001) and self management by Richard and Shea (2009). For the sustainability of the package effects on menopausal women, the self esteem (self efficacy) is measured by referring to the concept and theory proposed by Bandura (1997). The effectiveness of “Aging Package” is demonstrated by increased ability before and after receiving the intervention of “Aging Package”, i.e. increased in knowledge, attitude and skills to overcome physical, sexual and psychological problems in the intervention group and the findings of different ability to overcome physical, sexual and psychological problems between the intervention and the control group. For sustainable effect of the package in menopausal women, the self esteem (self efficacy) is measured to continuously improve the self ability to overcome physical, sexual and psychological problems. The recommendation of “Aging package” should be disseminated to the health care personnel and the community to improve the quality of life of women during menopause.

## References

- Abernethy, K. (2003). Menopause. *Nursing standard. ProQuest: pg. 45*
- Al-Qutob, R. (2001). Menopause-associated problems: types and magnitude. A study in the Ain Al-Basha area, Jordan. *Issues and Innovations in Nursing Practice. Journal of Advance Nursing: 33(5): 613-620.* Blackwell Science Ltd.
- Barlow, J., et. al. (2002). *Self-management approaches for people with chronic conditions: a review. Patient Education and Counseling: 48: 177-187.* Elsevier.
- Bearnot, K. S. (2010). *Menopause, Depression, and Loss of Sexual Desire: A Psychodynamic Contribution. Journal of The American Academy of Psychoanalysis And Dynamic Psychiatry. Spring : 38 (1): Pro Quest pg. 99*
- Bodenheimer, T., et. al. (2002). *Patient Self-management of Chronic Disease in Primary Care. Innovation In Primary Care, JAMA: 288(19): 2469-2475*
- Brotto, L.A, Heiman, J.R, Goff B, et. al. (2008). *A psychoeducational intervention for sexual dysfunction in women with gynecologic cancer. Arch Sex Behav 10: 91-96*
- Cobb, J. O. (1993). *Understanding Menopause.* Toronto : A Friend Indeed Publication Inc.
- Colaizzi, P. F. (1978). *Psychological research as the phenomenologist views it. In existential phenomenological alternatives for psychology (eds R.S. Valle & M. King), pp 48-71.* New York: Oxford University Press.
- Cormier, W. H., & Cormier, L. S. (1985). *Interviewing Strategies For helpers.* Monterey, California: Brooks/Cole Publishing
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing And Conducting Mixed Methods Research.* 2<sup>nd</sup> ed. Sage Publications, Inc.
- Dormire, S. L. (2003). *What We Know About Managing menopausal Hot flashes: Navigating without a Compass. JOGNN: 32: 455-464*
- Eden, (2009). *Quality of sexual life and menopause. Women's Health: 5: 385-96*
- Genazzani, A. R., et. al. (2007). *Menopause and aging, quality of life and sexuality.*

- Climacteric*: 10: 88-96. International Menopause Society.
- Graziottin, A. (2007). *Effect of premature menopause on sexuality: Review. Women's Health*: 3(4): 455-474
- Greenblum, C. M. (2010). *Women in perimenopause and menopause: Stress, coping and quality of life*. Dis. University of Florida, USA
- Holloway, D. (2007). *Managing The Menopause. Practice Nurse* 4, 7; *Pro Quest* pg. 20
- Koster, A., & Garde, K. (1993). *Sexual desire and menopause development: A Prospective Study of Danish Women Born in 1963*.
- Kotler, P. (2002). *Marketing Management. (compilation copyright)*. Boston: Pearson Custom Publishing
- Lalos, O. (2001). *Impact of urinary and climacteric symptoms on social and sexual life after surgical treatment of stress urinary incontinence in women. Journal of advanced nursing* 33 (3), 316-327
- Lark, S. (1992). *The menopause self help book*. California : Celestial Arts.
- Lawn, S., & Schoo, A. (2005). *Supporting self-management of chronic health conditions: common approaches. Patient Education and Counseling*: 80: 205-211. Elsevier.
- Li, S., Holm, K., Gulanick, M., Lanuza, D., & Penckofer, S. (1999). *The relationship between physical activity and perimenopause. Health care for women international*.
- \_\_\_\_\_ (1996). *Perimenopause: The transition into menopause. Health Care for Women International. Jul-Aug. 17(4) 293-306*
- Lorig, K. R., et. al. (2005). *A national dissemination of an evidence-based self-management program: a process evaluation study. Patient Education and Counseling*: 59: 69-79. Elsevier.
- Lorig, K. R., & Holman, H. R. (2003). *Self-Management Education: history, Definition, Outcomes, and Mechanisms*. National Institute of Nursing Research. The Society of Behavioral Medicine.
- Marnocha, S. K., Bergstrom, M. & Dempsey, L. F. (2011) *The lived experience of*

- perimenopause and menopause. Contemporary Nurse, 37(2), 229-240*
- Mashiloane, C. D., et. al. (2001). *Awareness of and attitudes toward menopause and hormone replacement therapy in an African community. International Journal of Gynecology & Obstetrics: 76: 91-93*
- Mc Craw, R. K. (1991). *Psychosexual changes associated with the perimenopausal period. Journal of nurse-midwifery: 36 (1): 17-24*
- Mc Kinlay, S. M., Brambilla, D. J., & Posner, J. G. (1992). *The normal menopause transition. Maturitas: 14: 103-115.*
- Nieman, L. (2000) *Estrogen replacement in perimenopause-related depression. Am J Obstet Gynecol: 183: 414-420*
- Northrup, C. (2012). *The wisdom of menopause: creating physical and emotional health during the change.* New York: Bantam Books.
- Orem, D.E. (2001). *Nursing concepts of practice.* Philadelphia: Mosby Year Book Inc.
- Osborn, M., Hawton, K., & Oath, D. (1980). *Sexual dysfunction among middle aged women in the community. British Medical Journal.*
- Redman, B. K. (1993). *The Process of patient Education.* 7<sup>th</sup> ed. St. Louis Mosby Year Book Inc.
- Richard, A. A., & Shea, K. (2011). *Delineation of self-Care and Associated Concepts. Journal of nursing Scularship: 43(3): 255-264*
- Richard, K. (2009). *Quality of sexual life and menopause. Women's Health: 5: 385-96.*
- Roca, C.A. (2000). *Estrogen replacement in perimenopause-related depression. Am J Obstet Gynecol: 183: 414-420*
- Ryan, P., & Sawin, K. J. (2009). *The Individual and Family Self-Management Theory: Background and perspectives on context, process, and outcomes. Nursing Outlook: 57: 217-225. Mosby, Inc.*
- Sagsoz, N., et. al. (2001). *Anxiety and depression before and after the menopause. Original Article. Arch Gynecol Obstet: 264: 199-202. Springer-Verlag.*
- Satoh, T., & Ohashi, K. (2005). *Quality-of-life assessment in community-dwelling,*

- middle-aged, healthy women in japan. Climacteric: 8: 146-153.*  
International Menopause Society.
- Scharbo-DeHaan, M., & Brucker, M. C. (1991). *The perimenopausal period: Implications for nurse-midwifery practice. Journal of nurse midwifery, 36(1): 9-16*
- Schreurs, K. M. G., et. al. (2003). *Development, content, and process evaluation of a short self-management intervention in patients with chronic diseases requiring self-care behaviours. Patient Education and Counseling: 51: 133-141.* Elsevier.
- Setiadji, V. S. (2012). *Neurotransmitter:reseptor dan cara kerja*, Jakarta: Badan Penerbit Fakultas Kedokteran Universitas Indonesia.
- Stocker, N. L. (2009). *Sweating it out. Exercise, quality of life, and the perimenopause experience for women in Calgary. Masters Abstract International, 47(06). (UMI No. MR49777).*
- Streubert, H. J., & Carpenter, D. R., (2003), *Qualitative Research in Nursing.* Philadelphia: Lippincott Williams & Wilkins.
- Tagliaferri, M., Cohen, I., & Tripathy, D. (2006).. *Ihwal yang perlu anda ketahui tentang menopause. Alih Bahasa.* Jakarta: PT Indeks.
- Tomey, A. M., & Alligood, M. R. (1998). *Nursing theorists and their work.* 4<sup>th</sup> ed. USA: Mosby-Year Book inc.
- Van Dole, K. B. (2009). *The evaluation of the menopause-Specific Quality of Life Questionnaire and association of vasomotor and psychosocial symptoms among postmenopausal women in the United States.* Dis. University of North Carolina – Chapel Hill, USA
- Wirakusumah, E. S. (2004). *Tip & solusi gizi untuk tetap sehat, cantik, dan bahagia di masa menopause dengan terapi estrogen alami.* Jakarta: PT Gramedia Pustaka Utama.