

RESEARCH ARTICLE

OPEN ACCESS

Manuscript received May 18, 2022; revised August 20, 2022; accepted August 12, 2022; date of publication August 25, 2022

Digital Object Identifier (DOI): <https://doi.org/10.35882/ijahst.v2i6.183>

Copyright © 2022 by the authors. This work is an open-access article and licensed under a Creative Commons Attribution-ShareAlike 4.0 International License ([CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/))

How to cite: Deby Anggraeni, Isnanto, and Ida Chairanna Mahirawatie, "Investigating the Relationship between Social Support and Quality of Life of Menopausal Women among Postmenopausal Women in Jakarta, Indonesia", International Journal of Advanced Health Science and Technology, vol. 2, no. 6, pp. 414–419, December. 2022.

Investigating the Relationship between Social Support and Quality of Life of Menopausal Women among Postmenopausal Women in Jakarta, Indonesia

Heriza Syam , **Andini Fitriani, Wa Ode hajrah, Siti Masitoh, Jehanara**

Midwifery Department, Jakarta 3 Health Polytechnics, Ministry of Health

ABSTRACT Menopausal women experience hormone deficiencies that cause complaints of vaginal atrophy, hot flushes, weight gain, bone pain, depression and others, which affect women's quality of life. This is supported by the results of research by Ruri Yuni, et al (2014) which states that 69.6% of menopausal women's quality of life is affected by menopausal syndrome. Polat (2021) states that social support can reduce menopausal symptoms. This study looks directly at how social support (emotional, awards, instruments and information) can improve the quality of life of postmenopausal women. The purpose of the research is to determine the correlation of social support to the quality of life of women in dealing with menopausal life in the Puskesmas Pondok Bambu II Village. Research method is quantitative, with a cross sectional analytic design. The sample of this study was 45-55 years old postmenopausal women who had a family/husband in Puskesmas Kelurahan Pondok Bambu II area are 47 people. This research uses Purposive Sampling Technique. The results from 47 respondents, menopausal women with social support with good quality of life were 20 respondents (76.9%), compared to menopausal women who received social support but had poor quality of life by 6 respondents (23.1%). The results of the Chi-Square test obtained p value of 0.003 which means that there is a relationship between social support and the quality of postmenopausal women. Conclusion research that social support can improve the quality of life of postmenopausal women by 6.7 times, the basis for health workers in increasing education to families/couples of menopausal women about the efforts made to increase support for menopausal women, both emotional support, awards, facilities/instruments provided, and information

INDEX TERMS Menopause, social support, quality of life.

I. INTRODUCTION

Menopause is a condition of a woman after 12 months of amenorrhea without a clear pathological cause with an average age of 51 years with symptoms that appear related to hot flashes, sleep disturbances, and vaginal or urinary symptoms [1]. World Health Organization (WHO) in 2000, the total population of women experiencing menopause worldwide reached 645 million people, in 2010 it reached 894 million people and it is estimated that in 2030 the number of women in the world who enter menopause will reach 1,2 billion people. In 2020 the number of women living in the age of menopause in Indonesia is 30.3 million people [2]. According to the Central Statistics Agency, in 2025 it is estimated that there will be 60 million menopausal women [3]. DKI Jakarta Province in 2020 the number of women who experience the menopause phase at the age of 45-55 years is 759,926 people. East Jakarta City has a population of women aged 45-55 years as many as 210,741 people. The Duren Sawit Subdistrict Health Center in 2020

has a total of 28,516 women aged 45-55 years in all villages. The 4th largest number of female residents aged 45-55 are in Pondok Bambu Village with 3,140 people and in the Pondok Bambu II Health Center area as many as 585 people have entered menopause [4].

The increase in life expectancy is caused by an increase in health and socioeconomic status which will have an impact on the length of time women live during menopause. Menopause causes more than 80% of women to experience physical and psychological complaints with various pressures and disorders of decreasing quality of life [3]. Menopausal women 82.7% experience impaired quality of life caused by, among others, physical function, physical role, vitality and body pain, such as hot flushes and night sweats and also feel the discomfort of vaginal dryness which can affect their quality of life in physical dimensions such as feeling tired and weak, reduced physical ability, difficulty sleeping and muscle. Psychological complaints that arise

include depression, anxiety, irritability, and mental fatigue [5].

In postmenopausal women, it was found that the incidence of chronic disease would increase further, it was seen that the most disease found in women aged more than 45 years in the Pondok Bambu II Public Health Center was hypertension with a total of about 265 cases [4]. In addition, diseases that arise due to estrogen deficiency will cause degenerative diseases to easily arise. The further impact of menopause is 80% osteoporosis and increasing heart disease and Diabetes Mellitus [6,7].

These problems can affect the quality of life of postmenopausal women. The quality of individual life can be seen from five things, namely work productivity, social support, intellectual, emotional stability, role in social life, and is indicated by life satisfaction both in terms of material and non-material. Sixty-nine point six percent of menopausal women's quality of life is affected by menopausal syndrome. Polat's research [8] shows that there is a significant relationship between social support and a reduction in menopausal complaints [1,9,10].

A study conducted by Jalambadani [11] showed that there was a significant relationship between social support (psychological and social) on the quality of life of postmenopausal women [12].

Postmenopausal women have a need to adapt to changes in their social roles. There needs to be social support, self-confidence and a positive attitude towards the complaints experienced by menopausal women so that they can accept menopause as a gift because it is a natural thing for a woman. Environmental support has a very big role in undergoing menopause life, where a husband/family who can accept changes in conditions during menopause can make women not worry about the physical changes that occur [6].

Therefore, researchers are interested in seeing how the relationship of social support in the form of emotional support, awards given, facilities/instruments provided, and information to improve the quality of life of menopausal women.

II. METHODOLOGY

The type of study used was quantitative study with a cross sectional analytic approach which aimed to analyze the relationship between social support (emotional, appreciation, instrument and information), knowledge, work and income with the quality of life of postmenopausal women. This study was conducted at a Pondok Bambu II Community Health Center, Duren Sawit District, East Jakarta in February-April 2021. In this study the population post menopause women. The samples were taken by means of purposive sampling until 47 postmenopausal women. Inclusion criteria: menopausal women aged 45-55 years who still have a husband / family. Exclusion criteria: Menopausal women who have a history of serious illness or are under medical supervision such as stroke, limited mobility, visually impaired.

The data collection tool in this study was in the form of a questionnaire that was open and closed. There were 34 questions on the questionnaire which consisted of 4 questions on respondent characteristics, 20 questions on knowledge about menopause, 12 questions on social support and WHOQOL-BREF (World Health Organization Quality of Life-BREF) quality of life. This questionnaire has been tested for validity and reliability. The WHOQOL-BREF instrument is a valid ($r = 0.89-0.95$) and reliable ($R = 0.66$) measuring instrument. - 0.87) [13,14]. Data were through stages, consisting of collecting, editing, processing, and conclusion. Univariate analysis was used to explain or describe the frequency distribution or the proportion of all the variables studied, both the dependent and independent variables. Bivariate analysis used is Chi Square with a significance degree (α) 5% processed using a computerized system using the SPSS program.

III. RESULT

This research was conducted on all postmenopausal women with an age range of 45-55 years who were in the working area of the Puskesmas Pondok Bambu II Subdistrict Duren Sawit, East Jakarta in 2021 as many as 47 people. The limitation of this study is that there are only 3 variables that affect the quality of life of menopause, namely the characteristics of menopausal women, support and knowledge. This research was conducted during the Covid - 19 Pandemic, which allows respondents' answers to be biased regarding the quality of life because it is not purely caused by menopause but also affected by the covid-19 pandemic condition.

A. Univariate Analysis

Characteristics of respondents in this study were grouped based on maternal age, mother's education, employment status and income. Based on the results of the study, the following results were obtained.

TABLE 1

Frequency Distribution of Respondents' Characteristics at the Pondok Bambu II Community Health Center in 2021

No.	Characteristics	n	%
1	Women's Age		
	a. 45-50 years	13	27,7%
	b. 51-55 years	34	72,3%
	Total	47	100,00%
2	Women's Education		
	a. Low Education	15	31,9%
	b. Higher education	32	68,1%
	Total	47	100,00%
3	Job status		
	a. Working	14	29,8%

	b. Not working	33	70,2%
	Total	47	100,00%
4	Income		
	a. ≥ UMR DKI Jakarta	7	14,9%
	b. < UMR DKI Jakarta	40	85,1%
	Total	47	100,00%

Based on table, the majority of respondents' ages ranged from 51-55 years as many as 34 respondents (72.3%). The respondent's last education is higher education (SMA / Vocational High School / Academy / College) as many as 32 respondents (68.1%). Thirty-three respondents (70.2%) were unemployed. Most of the income is below the minimum wage for DKI Jakarta, namely 40 respondents (85.1%)

TABLE 2

Distribution of Quality of Life, Knowledge and Social Support for Menopause Women in the Community Health Center area of Pondok Bambu II Village, Duren Sawit District, East Jakarta in 2021

No	Variable	n	%
1	Quality of Life		
	Good	27	57,4
	Less	20	42,6
2	Women's Knowledge		
	Good	24	51,1
	Less	23	48,9
3	Social Support		
	Support	26	55,3
	Not Support	21	44,7
	Total	47	100

Based on table 3, it can be concluded that most of the respondents have a good quality of life of 57.4%. Most of them have a good knowledge level of 51.1%. Most of them received social support by 55.3%.

TABLE 3

Frequency Distribution of Social Support Domains for Menopausal Women in the Community Health Center area of Pondok Bambu II Village, Duren Sawit District, East Jakarta in 2021

No	Domain Social Support	Total Score	%
1	Emotional/Psychological	550	26.8
2	Awards/Social	499	24,4
3	Information	518	25,3
4	Instrument/Environment	483	23,5

Based on table 3, the domain of support that was given the most was emotional/psychological support, as much as 26.8%

B. Bivariate Analysis

TABLE 4

Relationship of Social Support, Knowledge, Employment and Income to Quality of Life for Menopause Women in the Community Health Center area of Pondok Bambu II Village

Variable	p-Value	Odds Ratio	CI95 %
Social Support			
Support	0.003	6.667	(1.841-24.138)
Not Support			
Knowledge			
Good	0,013	4.667	(1.341-16.239)
Less			
Level education			
Higher education	0.022	4.400	(1.189-16.277)
Low education			
Working			
Working	0.011	7.200	(1.388-37.352)
Not Working			
Income			
≥Regional Minimum Wage	0,014	2.000	(1.467-2.727)
<Regional Minimum Wage			

** . Correlation is significant at the 0.01 level (2-tailed).

The results of the analysis of the relationship between social support and quality of life for menopausal women. Statistical test results with Chi Square obtained p value = 0.003, meaning that there is a significant relationship between social support and quality of life for menopausal women in the Puskesmas area of Pondok Bambu II Village, Duren Sawit District, East Jakarta in 2021 With an OR value of 6.667, which means that women who receive social support have 6.667 times the opportunity to have a better quality of life.

The results of statistical tests with Chi Square obtained p value = 0.013, meaning that there is a significant relationship between knowledge and quality of life of postmenopausal women in the Pondok Bambu II Community Health Center, Duren Sawit District, East Jakarta in 2021. With an OR value of 4.667 which means that the quality of life is both menopausal women who have good knowledge, have a 4.67 times greater chance than menopausal women who have less knowledge.

The results of statistical tests with Chi Square obtained a p value = 0.02, meaning that there is a relationship between maternal education and the quality of life of postmenopausal women in the Puskesmas area of Pondok Bambu II Village, Duren Sawit District, East Jakarta in 2021. The results of the analysis obtained an OR value of 4.400 which means that the quality of The quality of life for postmenopausal women with higher educational status is 4.4 times greater than the quality of life for postmenopausal women with low educational status.

There is a significant relationship (P=0.011) between work and quality of life for menopausal women in the

Puskesmas area of Pondok Bambu II Subdistrict, Duren Sawit District, East Jakarta in 2021. With an OR value of 7,200 which means that a good quality of life in menopausal women who have working status have a 7.2 times greater chance than menopausal women who do not work.

The results of the analysis showed that there was a significant relationship ($p=0.014$) between income and quality of life of postmenopausal women in the Puskesmas area of Pondok Bambu II Village, Duren Sawit District, East Jakarta in 2021. With an OR value of 2,000 which means that a good quality of life for postmenopausal women who have high incomes, have a 2-fold greater chance than menopausal women who have low incomes.

IV. DISCUSSION

A. Menopause Women's Social Support

This study shows that 55.3% of postmenopausal women in Pondok Bambu II District, Duren Sawit District, East Jakarta receive social support from their families or partners (table 2). The domain of social support that was given the most was emotional support (26.8%) (table 3). The results of the study in table 4 prove that there is a relationship between social support and the quality of life of postmenopausal women ($p = 0.003$). The results of this study are in line with other studies which state that social support can increase an individual's ability to cope with stress and reduce psychological and physical symptoms [15,16].

Studies show that social support has an inverse and significant correlation with the experience of postmenopausal women so that by increasing social support from various sources, physical and emotional symptoms are reduced [17]. The quality of life of postmenopausal women is influenced by several factors, one of which is family support. Family support is a form of service behavior carried out by the family in the form of information, assessment / appreciation, instrumental and emotional. Family is the main support system in maintaining health. Family support is included in the supporting factors that can affect a person's behavior and lifestyle so that it has an impact on health status and quality of life [8].

The quality of life of postmenopausal women in terms of social support in Sempakata Padang Village, the results showed that there was a positive relationship between quality of life and social support ($p = 0.000$) [18]. The most important sources of social support are from partners, parents, and family. Social support is verbal, non-verbal information, advice, and assistance or real behavior provided by individuals who are familiar with the subject in their social environment and which can provide emotional or social benefits.

1. The relationship between knowledge and quality of life of menopausal women

The results of this study indicate that most of the respondents have a good level of knowledge of 51.1%. Based on the

results of the study, it is known that knowledge affects the quality of life of postmenopausal women in the Pondok Bambu II Community Health Center, Duren Sawit District, East Jakarta in 2021 ($p = 0.013$). Knowledge of menopause can help menopausal women to adjust to the changes that occur as a result of menopause. The results of this study are in line with research by Larroy (2019) that there is a significant relationship ($P = 0.015$) between knowledge about menopause and a better quality of life. According to Larroy, the improvement in the quality of life in menopausal women is obtained from the reduction and acceptance of menopausal symptoms mediated by knowledge and level of education [18]. This statement is in line with the research of Gebretatyos H, *et al* (2020), knowledge is the initial phase for the development of positive behavior and improving the quality of life of postmenopausal women [19,20]. Quasi-experimental research conducted by Rathnayake (2020) shows that providing education is able to increase knowledge of menopausal women which has implications for improving the quality of life of menopausal women who are healthier and more active [21–23].

When women's awareness of menopause increases, it will improve attitudes, health behaviors, and health habits that ultimately lead to an increase in quality of life. Knowledge could be easily employed to raise awareness of women, instill favorable attitude, and hence promote good quality of life during menopause [20]. Knowledge about menopause is a factor that determines a person's acceptance of menopause as a natural change that will be experienced by every woman, this can reduce the anxiety of menopausal women. Knowledge factor can reduce depression and excessive anxiety so that it can increase physical, psychological and spiritual readiness [20,24,25,26].

Knowledge about menopause is a determining factor in efforts to adapt to changes in the life cycle that will provide readiness to face and undergo menopause. Women's coping mechanisms in dealing with menopause are influenced by knowledge with education level, thinking maturity, socio-economic factors, culture regarding menopause, and mental maturity [8].

Sufficient knowledge about menopause can help women prepare for menopause, with this knowledge can influence a woman's decision to behave in a healthy manner later. Knowledge can affect the level of readiness to face menopause which has implications for physical, psychological, and spiritual readiness in facing menopause [27].

2. The relationship between education and quality of life of postmenopausal women

This study shows that there is a relationship between maternal education and the quality of life of postmenopausal women at Pondok Bambu II Public Health Center, Duren Sawit District, East Jakarta in 2021 ($p=0.002$). This is in line with research by Kieliszek (2014) which states that low

education level is also a strong independent predictor of poor quality of life [13]. Women with bachelor's or master's degrees enjoy a better quality of life compared to those with lower levels of education. There is a negative correlation between women's education level and quality of life [18].

The level of education is directly proportional to one's knowledge. The higher the level of education of a person, the easier it is to receive information, so that his thinking ability is more rational. In this study, most of the respondents were highly educated, namely SMA/SMK and Academic/College (68.1%). According to Gebretatytos (2020) education shows a significant positive impact in increasing knowledge scores in menopausal women [19]. This is in line with Forouhari's research that the level of education has a significant effect on increasing knowledge [20]. The results of the study are in line with Barati's (2001) research on factors related to the quality of life of postmenopausal women, the level of education affects the quality of life of postmenopausal women ($P < 0.001$) [18,28].

3. The relationship between employment and quality of life of postmenopausal women.

This study shows that there is a relationship between work and quality of life of postmenopausal women at Pondok Bambu II Public Health Center, Duren Sawit District, East Jakarta in 2021 ($p = 0.011$). The results of this study are in line with the research which shows that there is a significant relationship between work and quality of life for postmenopausal women, with a p-value of 0.001 [29].

This study is in line with research by Norozi (2013) which showed a statistically significant correlation between postmenopausal quality of life and work ($P < 0.01$) [12]. Demographic factors such as age, marital status, employment status, and education level are also factors that affect the quality of life of postmenopausal women. The work done by premenopausal women is related to the mother's opportunity to socialize and absorb health information [30].

4. The relationship between income and quality of life of postmenopausal women

The results showed that there was a relationship between income and quality of life of postmenopausal women in the work area of the Pondok Bambu II Public Health Center, Duren Sawit District, East Jakarta in 2021 ($p = 0.014$). The results of this study are in line with the research of Han MJ (2013) that the general characteristic variable that is significantly related to the quality of life of middle-aged women is the level of income ($p = 0.000$) [31].

Another study stated that the level of monthly family income affects the quality of life of postmenopausal women ($r = 0.218$, $P < 0.001$). This socio-economic situation will affect a person's physical, health and education factors, if

these factors are good enough it will be able to reduce the physiological and psychological burden [13]. The level of income has a significant effect on the psychosocial and sexual domains [6].

One of the most important factors in the utilization of health services by individuals is adequate income and access to financial resources. Post-menopausal women's access to financial resources is also one of the factors that affect their quality of life. According to several studies, women who have greater access to financial resources and income suffer from lower physical and psychological-social symptoms. Other researchers argue that satisfaction with financial situation is effective even on sexual satisfaction in postmenopausal women and improves quality of life especially in the sexual aspect [12,32,33].

This research may not be applied generally in all countries because the experience of menopause is influenced by the culture of the local community. This research was conducted during the Covid 19 pandemic. This condition may affect the quality of life of postmenopausal women. We did not include this pandemic factor in this study which allows bias in assessing the quality of life of menopausal women. This study only collects data on natural menopause, which is likely to be different from women who have menopause due to surgery or induction

IV. CONCLUSION

There was a significant relationship ($p = 0.003$) between social support and quality of life in postmenopausal women. Social support can improve the quality of life of postmenopausal women by 6.7 times. There was a significant relationship ($p = 0.013$) between knowledge and quality of life for menopausal women. Good knowledge about menopause will help women accept menopause conditions which have implications for improving the quality of life of postmenopausal women by 4.67 times. Education, occupation and income are significantly related to the quality of life of postmenopausal women. Education, occupation and income can be predictors of postmenopausal women's quality of life. The results of the study become the basis for health workers in increasing education to families/couples of menopausal women about the efforts made to increase support for menopausal women, both emotional support, awards, facilities/instruments provided, and information.

REFERENCES

- [1] B. Aloufi and N. S. Hassaniien, "The Association of Menopausal Symptoms and Social Support Among Saudi Women at Primary Health Care Centers in Taif, Saudi Arabia," *Cureus*, vol. 14, no. 6, 2022, doi: 10.7759/cureus.26122.
- [2] Kemenkes RI, *Profil Kesehatan Indonesia Tahun 2018*. 2019.
- [3] Kemenkes RI, *Morbiditas dan Multi Morbiditas pada Kelompok Lanjut Usia di Indonesia*. 2015.
- [4] Badan Pusat Statistik Jakarta Timur, "Statistik Daerah Kecamatan Duren Sawit 2020," 2020.
- [5] A. Baziad, *Menopause dan Andropause*. 2015.
- [6] G. K. Poomalar and B. Arounassalame, "The quality of life during and after menopause among rural women," *J. Clin. Diagnostic Res.*, vol.

- 7, no. 1, pp. 135–139, 2013, doi: 10.7860/JCDR/2012/4910.2688.
- [7] D. E. R. Warburton, C. W. Nicol, S. N. Gatto, and S. S. D. Bredin, "Cardiovascular disease and osteoporosis: Balancing risk management," *Vasc. Health Risk Manag.*, vol. 3, no. 5, pp. 673–689, 2007.
- [8] F. Polat, I. Orhan, and D. Şimşek Küçükkeleşçe, "Does social support affect menopausal symptoms in menopausal women?," *Perspect. Psychiatr. Care*, vol. 58, no. 3, pp. 1062–1070, 2022, doi: 10.1111/ppc.12899.
- [9] D. Zhao, C. Liu, X. Feng, F. Hou, X. Xu, and P. Li, "Menopausal symptoms in different substages of perimenopause and their relationships with social support and resilience," *Menopause*, vol. 26, no. 3, pp. 233–239, 2019, doi: 10.1097/GME.0000000000001208.
- [10] N. Erbil and M. Gümüştay, "Relationship Between Perceived Social Support and Attitudes Towards Menopause among Women and Affecting Factors," *Middle Black Sea J. Heal. Sci.*, vol. 4, no. 2, pp. 7–18, 2018, doi: 10.19127/mbsjohs.417940.
- [11] Z. Jalabadani, Z. Rezapour, and S. Movahedi Zadeh, "Investigating the Relationship between Menopause Specific Quality of Life and Perceived Social Support among Postmenopausal Women in Iran," *Exp. Aging Res.*, vol. 46, no. 4, pp. 359–366, 2020, doi: 10.1080/0361073X.2020.1776020.
- [12] E. Norozi, F. Mostafavi, M. Moodi, A. Hasanzadeh, and G. Sharifirad, "Factors affecting quality of life in postmenopausal women, Isfahan, 2011," *J. Educ. Health Promot.*, vol. 2, no. 1, pp. 58, 2013, doi: 10.4103/2277-9531.120857.
- [13] D. Zolnierczuk-Kieliszek, T. B. Kulik, M. Janiszewska, and A. Stefanowicz, "Influence of sociodemographic factors on quality of life in women living in Lublin Province in Poland," *Prz. Menopauzalny*, vol. 18, no. 1, pp. 13–17, 2014, doi: 10.5114/pm.2014.41079.
- [14] W. H. Organization, *The World Health Organization Quality Of Life (Whoqol)*. 2004.
- [15] M. Namazi, R. Sadeghi, and Z. B. Moghadam, "Social determinants of health in menopause: An integrative review," *Int. J. Womens. Health*, vol. 11, pp. 637–647, 2019, doi: 10.2147/IJWH.S228594.
- [16] S. N. Mirhaghjoui, M. Niknami, M. Moridi, S. Pakseresht, and E. Kazemnejad, "Quality of life and its determinants in postmenopausal women: A population-based study," *Appl. Nurs. Res.*, vol. 30, pp. 252–256, 2016, doi: 10.1016/j.apnr.2015.10.004.
- [17] S. Shariat and M. Simbar, "Relationship of perceived social support with women's experiences in menopause," *Adv Nurs Midwifery*, vol. 25, no. 90, 2014.
- [18] C. Larroy, C. Marin Martin, A. Lopez-Picado, and I. Fernández Arias, "The impact of perimenopausal symptomatology, sociodemographic status and knowledge of menopause on women's quality of life," *Arch. Gynecol. Obstet.*, vol. 301, no. 4, pp. 1061–1068, 2020, doi: 10.1007/s00404-019-05238-1.
- [19] H. Gebretatyos, L. Ghirmai, S. Amanuel, G. Gebreyohannes, Z. Tsighe, and E. H. Tesfamariam, "Effect of health education on knowledge and attitude of menopause among middle-age teachers," *BMC Womens. Health*, vol. 20, no. 1, pp. 1–10, 2020, doi: 10.1186/s12905-020-01095-2.
- [20] Forouhari, R. M. Safari, M. Moattari, M. Mohit, and H. Ghaem, "The effect of education on quality of life in menopausal women referring to shiraz Motahhari clinic in 2004," *J Birjand Univ Med Sci*, vol. 16, no. 1, pp. 39–44, 2009.
- [21] N. Rathnayake, G. Alwis, J. Lenora, I. Mampitiya, and S. Lekamwasam, "Effect of Health-Promoting Lifestyle Modification Education on Knowledge, Attitude, and Quality of Life of Postmenopausal Women," *Biomed Res. Int.*, vol. 2020, 2020, doi: 10.1155/2020/3572903.
- [22] V. Pathak, N. Ahirwan, and S. Ghate, "Study to Assess Knowledge, Attitude and practice Regarding Menopause Among Menopausal Women Attending Outdoor in tertiary Care Centre," *Int. J. Reprod. Contraception, Obstet. Gynecol.*, vol. 6, no. 5, pp 1848+, 2017, doi: link.gale.com/apps/doc/A499492509/AONE?u=anon-93615004&sid=sitemap&xid=d82113dc.
- [23] M. Zeidi, A. Pakpour, and M. Zeidi, "The Impact of Educational Interventions based on Individual Empowerment Model on Knowledge, Attitude, Self-Efficacy, Self Esteem and Quality of Life of Postmenopausal Women," *Iran J. Nurs.*, vol. 26, no. 81, pp: 21-31, 2013.
- [24] B. N. Delshad A, "The effect of menopause education on spouses on social support perceived by postmenopausal women in Gonabad city," *Payesh*, vol. 8, no. 4, pp. 343–349, 2009.
- [25] S. A. Elnaggar, A. H. Mohammed, and S. A. El-Rilbraheem, "Health Education Effect on Knowledge and Attitude of Peri-Menopausal and Menopausal Women toward Menopause at El-Arabin District in Suez Governorate," *Life Sci J.*, vol. 10, no. 4, 2013.
- [26] E. Orabi, "Effect of health education intervention on knowledge, and attitude regarding menopausal period among premenopausal female employees," *Egypt J Community Med*, vol. 35, no. 3, pp. 71–84, 2017.
- [27] C. Bryant, F. K. Judd, and M. Hickey, "Anxiety during the menopausal transition: A systematic review," *J. Affect. Disord.*, vol. 139, no. 2, pp. 141–148, 2012, doi: 10.1016/j.jad.2011.06.055.
- [28] M. Barati, H. Akbari-heidari, E. Samadi-yaghin, E. Jenabi, H. Jormand, and N. Kamyari, "The factors associated with the quality of life among postmenopausal women," *BMC Womens. Health*, vol. 21, no. 1, pp. 1–8, 2021, doi: 10.1186/s12905-021-01361-x.
- [29] S. M. Charandabi *et al.*, "Quality of life of postmenopausal women and their spouses: A community-based study," *Iran. Red Crescent Med. J.*, vol. 17, no. 3, pp. 1–7, 2015, doi: 10.5812/ircmj.21599.
- [30] S. Wieder-Huszla *et al.*, "Effects of socio-demographic, personality and medical factors on quality of life of postmenopausal women," *Int. J. Environ. Res. Public Health*, vol. 11, no. 7, pp. 6692–6708, 2014, doi: 10.3390/ijerph110706692.
- [31] M.-J. Han and J.-H. Lee, "Factors Influencing Self-Identity and Menopausal Symptoms on Level of Depression in Middle Aged Women," *Korean J. Women Heal. Nurs.*, vol. 19, no. 4, p. 275, 2013, doi: 10.4069/kjwhn.2013.19.4.275.
- [32] L. Li *et al.*, "Factors associated with the age of natural menopause and menopausal symptoms in Chinese women," *Maturitas*, vol. 73, no. 4, pp. 354–360, 2012, doi: 10.1016/j.maturitas.2012.09.008.
- [33] H. Fallahzadeh, "Quality of life after the menopause in Iran: A population study," *Qual. Life Res.*, vol. 19, no. 6, pp. 813–819, 2010, doi: 10.1007/s11136-010-9644-2.