BENIH

Benih : Journal of Midwifery
Volume 04, Number 02, 2025, doi.org/10.54209/benih.v4i02.492
E.SSN : 2829-4513 (Online)
https://journal.cdfpublisher.org/index.php/Benih/index

INFLUENCE OF SOY MILK CONSUMPTION ON REDUCING HOT FLUSHES IN PRE-MENOPAUSAL WOMEN IN SIUMBUT BARU WARD I YEAR 2025

Joharmi, Meity Christiani, Ustifina Hasanah Hasibuan, Dinda Purnama DS
STIKes As Syifa
joharmi.lutfhi@gmail , christianimeity@gmail.com , herfina90@gmail.com , dindapurnama@gmail.com

Article Info

Keywords:
Soy milk, hot flush, pre-menopause

ABSTRACT

AHot flush is one of the common vasomotor symptoms experienced by women during pre-menopause due to decreased estrogen levels. Soy milk contains phytoestrogens (isoflavones) that act similarly to estrogen and are believed to reduce hot flush symptoms. This study aimed to determine the effect of soy milk consumption on reducing hot flush among pre-menopause women in Siumbut New Village in 2025. This was a quantitative study using a one-group pretest-posttest design. The sample consisted of 30 pre-menopause women selected by purposive sampling. The intervention was the daily consumption of soy milk (1 glass per night) for 14 consecutive days. Data were collected using observation sheets and analyzed with the Wilcoxon Signed Rank Test. Before the intervention, most respondents experienced severe (43.3%) and very severe (56.7%) hot flush symptoms. After the intervention, 60% of respondents reported no hot flush and 40% reported mild symptoms. The Wilcoxon test showed a significant difference ($Z = -4.855$, $p = 0.000$; $p < 0.05$), indicating that soy milk consumption effectively reduced hot flush symptoms. Conclusion: Soy milk consumption has a significant effect in reducing hot flush among pre-menopause women. It may be considered a safe and natural non-pharmacological alternative for managing menopause symptoms.

Corresponding Author:
Joharmi
STIKes As Syifa
Email:-

INTRODUCTION

Pre-menopause is a transition period which is experienced by women before entering menopause. In the perimenopause period, women can experience a number of symptoms, such as menstrual cycles that are not regular and hot flashes. Perimenopause can last for 4–10 years before menopause happens. This condition generally starts at the age of 45–55 years, but it can also appear earlier, for example because of certain diseases or a history of early menopause in the family (Ministry of Health Republic of Indonesia, 2022).

Hot flashes are a sensation or feeling of warmth which suddenly appears in the body. Usually, the sensation of heat is felt most intensely in the face, neck, and chest of somebody who experiences it. Besides that, this condition can also cause sweating. It needs to be known that hot flashes are generally a symptom of menopause and perimenopause which

are called vasomotor symptoms (VMS). The severity and duration of time somebody experiences hot flashes can vary (Mayo Clinic, 2022).

According to data from WHO (World Health Organization), menopause cases in the upcoming years are expected to increase significantly. WHO estimates that in the year 2030, there will be 1.2 billion women aged 50 years. A large part of them (around 80 percent) will live in developing countries. Every year, the population of menopausal women increases around three percent. Rough estimates show there will be around 30–40 million women aged over 60 years in Indonesia from the total population of around 240–250 million. In this age category (more than 60 years), almost 100 percent have experienced menopause along with all the consequences and impacts that accompany it (Achadiat, 2021).

Menopause starts with a progressive failure of the ovaries marked by a decline in estrogen levels. Estrogen production, which is produced by the ovaries, decreases from around 300 mg per day to almost zero. Post-menopausal women still have estrogen because fat tissue, the heart, and the adrenal cortex continue producing around 20 mg of estrogen per day. The disappearance of estrogen production by the ovaries causes many physical and emotional changes which lead to symptoms. Problems often found in menopausal women with hot flush are that they feel worried about their condition, so they experience anxiety and difficulty sleeping (Lubis, 2019).

Soy milk is a nutritious drink, especially because of its protein content which is equivalent to cow's milk at around 3.5 g/100 g, although it has lower vitamin and mineral content compared to cow's milk. Besides that, soy milk is free of lactose with fat content that is lower (2.5 g/100 g), making it good to be used by those who undergo a low-fat diet. Soy milk also contains calcium and phosphorus which play a role in bone and tooth formation (Koswara, 2022).

METHODS

a. Types of Research

This study used a quantitative method with a one-group pretest-posttest design. This design includes a pretest given before the treatment and a posttest after the treatment. With this approach, the results can be known more accurately because the conditions before and after the intervention can be compared.

b. Location

This study was conducted in Environment 1, Siumbut New Village, Jl. Budi Utomo, Range East Subdistrict, Asahan Regency.

c. Time

The research was conducted in October 2025 in Environment 1, Siumbut New Village, Jl. Budi Utomo, Range East Subdistrict, Asahan Regency.

d. Population and Sample

The population is the entire group that will be examined. The population in this study consisted of pre-menopause women totaling 167 people. The population taken in this study was pre-menopause women who experienced hot flush in Environment 1, Siumbut New Village in 2025.

e. Sampling Technique

The sampling technique used in this study was purposive sampling. According to Sugiyono (2022), purposive sampling is a "technique of determining samples with certain considerations." The selection of samples using purposive sampling was based on the fact that not all

populations fulfilled the criteria relevant to this study.

f. Data Analysis

Univariate Analysis

Univariate analysis was used to describe the characteristics of each variable studied, for example to see changes in hot flush symptoms before and after soy milk consumption.

Bivariate Analysis

Bivariate analysis was used to test the effect of soy milk on reducing hot flush. Data testing was carried out using the Wilcoxon Signed Rank Test to compare data before and after soy milk consumption.

RESULTS

Univariate Analysis

Table 1. Frequency Distribution of Hot Flush in Pre-Menopause Women Before Soy Milk Consumption in Environment I, Siumbut New Village, 2025

No	Hot Flush on Woman Pre-Menopause (Pre test)	Frequency	Percentage (%)
1	No There is	0	0.0
2	Light	0	0.0
3	Currently	0	0.0
4	Critical	13	43.3
5	Very Critical	17	56.7
	Total	**30**	**100.0**

Based on Table 4.1, it is known that before the intervention of soy milk consumption, most pre-menopause women in Environment I, Siumbut New Village experienced hot flush in the very severe category, totaling 17 persons (56.7%). Furthermore, 13 persons (43.3%) experienced hot flush in the severe category.

Table 2. Frequency Distribution of Hot Flush in Pre-Menopause Women After Soy Milk Consumption in Environment I, Siumbut New Village, 2025

No	Hot Flush on Woman Pre-Menopause (Post test)	Frequency	Percentage (%)
1	No There is	18	60.0
2	Light	12	40.0
3	Currently	0	0.0
4	Critical	0	0.0
5	Very Critical	0	0.0
	Total	**30**	**100.0**

Based on Table 4.2, it is known that after the intervention of soy milk consumption, most pre-menopause women in Environment I, Siumbut New Village no longer experienced hot flush, totaling 18 persons (60.0%). The remaining 12 persons (40.0%) experienced hot flush in the mild category. There were no respondents who experienced hot flush in the moderate, severe, or very severe categories after the intervention.

Bivariate Analysis

Table 3. The Influence of Soy Milk Consumption on Reducing Hot Flush in Pre-Menopause Women in Environment I, Siumbut New Village, 2025

Hot Flush On Woman Pre-Menopause	Consumption Milk Soya bean		Z-count	*p value*
	Pre	Post		
- No There is	0	18		
- Light	0	12		
- Currently	0	0	-4,855	0,000*
- Critical	13	0		
- Very Critical	17	0		

Based on Table 4.3, it is known that there was a significant change in the level of hot flush among pre-menopause women after the intervention in the form of soy milk consumption. Before the intervention, the majority of respondents experienced hot flush in the very severe category (17 persons) and severe category (13 persons).

DISCUSSION

Hot Flush Symptoms in Pre-Menopause Women Before Soy Milk Consumption in Environment I, Siumbut New Village, 2025

Based on the results shown in Table 4.1, before the intervention in the form of soy milk consumption, most pre-menopause women in Environment I, Siumbut New Village experienced hot flush symptoms in the very severe category (56.7%) and severe category (43.3%). No respondents were found to experience hot flush in the moderate, mild, or very mild categories before the intervention. Hot flush is one of the most common vasomotor symptoms experienced by pre-menopause and menopause women, characterized by a sudden sensation of heat in the face, neck, and chest, often accompanied by excessive sweating and a pounding heartbeat.

According to the researcher's assumption, the high incidence of severe and very severe hot flush before the intervention was likely caused by the low consumption of foods containing phytoestrogens—such as soybeans—in the respondents' daily diet, as well as the lack of information and awareness regarding pre-menopause symptoms and appropriate management strategies. This condition reflects the importance of health education and nutrition-based health promotion as preventive and promotive efforts for women approaching menopause.

Decline in Hot Flush Symptoms in Pre-Menopause Women After Soy Milk Consumption in Environment I, Siumbut New Village, 2025

After the intervention in the form of soy milk consumption for 14 consecutive days, the study results shown in Table 4.2 indicate a significant decrease in hot flush symptoms experienced by pre-menopause women. Most respondents, totaling 18 persons (60.0%), reported no longer experiencing hot flush symptoms, while 12 persons (40.0%) experienced only mild symptoms. No respondents were found experiencing hot flush in the moderate, severe, or very severe categories after the intervention. This change demonstrates a positive influence of soy milk consumption in improving vasomotor symptoms, especially hot flush, which commonly becomes the primary complaint among pre-menopause women.

According to the researcher's assumption, this improvement occurred not only due to the phytoestrogen content in soy milk but was also supported by increased awareness of the importance of nutritional intake during the pre-menopause transition. Consistent soy milk consumption for 14 days, combined with the body's adaptation to isoflavones as active compounds, contributed comprehensively to the decline in symptoms. This indicates that a non-hormonal nutrition-based approach such as soy milk can be an effective alternative to alleviate hot flush symptoms among pre-menopause women.

The Influence of Soy Milk Consumption in Reducing Hot Flush in Pre-Menopause Women in Environment I, Siumbut New Village, 2025

The analysis results presented in Table 4.3 show that there was a significant influence of soy milk consumption on reducing hot flush symptoms among pre-menopause women in Environment I, Siumbut New Village. Before the intervention, all respondents experienced hot flush, categorized as severe (43.3%) and very severe (56.7%). However, after 14 days of soy milk consumption, 60% of respondents no longer experienced hot flush symptoms, and the remaining 40% experienced only mild symptoms.

The Wilcoxon Signed Rank Test showed a Z-count value of -4.855 with a p-value of 0.000 ($p < 0.05$), indicating a statistically significant difference between conditions before and after soy milk consumption. These findings strengthen the conclusion that consistent soy milk consumption provides a positive effect in reducing the level of hot flush symptoms.

CONCLUSION AND SUGGESTIONS

Conclusion

The hot flush symptoms experienced by pre-menopausal women before the intervention of consuming soy milk were categorized as severe in all respondents.

After undergoing the intervention in the form of consuming soy milk for 14 days, there was a significant decrease in the severity level of hot flush symptoms. A total of 60.0% of respondents no longer experienced hot flush symptoms, while 40.0% experienced only mild symptoms.

Based on the Wilcoxon Signed Rank Test, the Z-count value was -4.855 with a p-value of 0.000 ($p < 0.05$), indicating a significant effect between conditions before and after consuming soy milk on the reduction of hot flush symptoms. Therefore, it can be concluded that regular consumption of soy milk for 14 days is effective in reducing hot flush symptoms in pre-menopausal women and can be used as a safe non-pharmacological alternative.

Suggestions

For Health Workers

The results of this study are expected to serve as health education material, especially for midwives, in improving the quality of health services for pre-menopausal women.

For Respondents

This study provides new knowledge for respondents regarding hot flush symptoms during the pre-menopause period and introduces an effective non-pharmacological alternative through soy milk consumption.

For Future Researchers

The findings of this study offer scientific experience and understanding for future researchers in explaining the influence of soy milk consumption on reducing hot flush symptoms in pre-menopausal women. Further research is recommended to expand sample size and observe long-term effects.

For the Study Site

This study becomes a valuable experience for the institution and is expected to provide positive contributions in the form of input, information, and new approaches to increasing attention to women's health issues during the pre-menopause stage.

REFERENCE

Achadiat, A. (2021). Menopause dan Perkembangannya di Dunia dan Indonesia. Jakarta: Penerbit Kesehatan Perempuan.

Aqila, R. (2020). Kesehatan Reproduksi Wanita. Yogyakarta: Pustaka Baru Press.

Astutik, S. (2020). Kesehatan Reproduksi Wanita. Yogyakarta: Deepublish.

Baziad, A. (2020). Menopause dan Gejala Klinisnya. Jakarta: FKUI.

Depkes RI. (2022). Survei Demografi dan Kesehatan Indonesia. Jakarta: Kementerian Kesehatan Republik Indonesia.

Fadhli Rizal Makarim, dr. (2023). Hot Flush: Penyebab dan Cara Mengatasinya. Diakses dari https://www.halodoc.com

Hartanti, N., & Sutrawati, N. (2021). Susu Kedelai dan Manfaatnya bagi Kesehatan Wanita. Bandung: Widya Karya.

Kemenkes RI. (2019). Proyeksi Penduduk dan Kesehatan Menopause di Indonesia. Jakarta: Kementerian Kesehatan Republik Indonesia.

Kemenkes RI. (2022). Informasi Kesehatan Wanita Menjelang Menopause. Jakarta: Pusat Data dan Informasi.

Koswara, S. (2022). Teknologi Pengolahan Kedelai. Bandung: Penerbit UNPAD Press.

Kusmiran, E. (2020). Kesehatan Reproduksi Wanita. Jakarta: Salemba Medika.

Lubis, D. (2019). Psikologi Menopause. Medan: Penerbit Medika Nusantara.

Lestari, R. N., & Wulandari, S. (2022). Pengaruh konsumsi susu kedelai terhadap penurunan hot flush pada wanita pre-menopause. Jurnal Gizi Klinik Indonesia, 16(1), 45–52. https://doi.org/10.31227/jgki.v16i1.4567

Mayo Clinic. (2022). Hot Flashes During Menopause. Diakses dari https://www.mayoclinic.org

Mubarak, W. (2020). Ilmu Psikologi Keperawatan dan Kebidanan. Jakarta: Salemba Medika.

Mulyani, S. (2020). Masa Perimenopause dan Penanganannya. Bandung: Pustaka Rakyat.

Mulyani, S. (2021). Terapi Sulih Hormon Alami bagi Wanita Menopause. Jakarta: Medika Prima.

Pranoto, A. (2020). Transisi Menopause pada Wanita. Yogyakarta: Pustaka Medis.

Pratiwi, D., Mulyani, S., & Anindita, R. (2023). Efektivitas fitoestrogen dalam makanan terhadap gejala menopause: Alternatif terapi non-hormonal. Jurnal Ilmu Kesehatan Reproduksi, 7(2), 88–95.

Proverawati, A. (2020). Menopause: Gejala dan Solusinya. Yogyakarta: Nuha Medika.

Simanjuntak, A., Ramadhani, F., & Harahap, Y. (2022). Pemberian fitoestrogen dan pengaruhnya terhadap gejala vasomotor menopause. Jurnal Gizi dan Kesehatan Indonesia, 14(3), 120–128.

Spencer, C., & Brown, R. (2020). Understanding Menopause Symptoms. London: Women's Health Publishing.