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THE EFFECTIVINESS OF TURMERIC AND TAMARIND HERBAL MEDICINE IN REDUCING MENSTRUAL PAIN INTENSITY

Cucuk Suwandi*, Ni Luh Cica Kusumadewi, Ni Putu Widhi Adnyani
STIKES Advaita Medika Tabanan, Jl. Perkutut No.25, Dajan Peken, Tabanan, Bali 82114, Indonesia
*cucuksuwandi1278@gmail.com

ABSTRACT
Menstrual cramps are pain that occurs during a woman's period, typically felt in the lower abdomen during the menstrual cycle. Effective non-pharmacological management includes administering turmeric and tamarind to reduce menstrual pain. Turmeric and tamarind contain curcumin and anthocyanins, which inhibit cyclooxygenase, thereby reducing inflammation and inhibiting uterine contractions. Interviews revealed that the menstrual pain was very bothersome. The aim of this study was to determine the effect of giving turmeric and tamarind herbal medicine on reducing the intensity of menstrual pain in nursing students at STIKES Advaita Medika Tabanan. The study employed a quantitative approach with a pre-experimental, one-group pretest-posttest design. Respondents were selected through purposive sampling of 16 people using a Numerical Rating Scale (NRS) pain assessment observation questionnaire. The Wilcoxon Signed Rank test was used for analysis. The decrease in menstrual pain scale after the intervention was given in the no pain category for 2 respondents (12.5%), mild pain for 11 respondents (68.8%), and moderate pain for 3 respondents (18.8%). The Wilcoxon Signed Rank test results showed a p-value of 0.001 (<0.05) and a Z-value of -3.286. The conclusion of this study is that there is an effect of giving turmeric and tamarind herbal medicine on reducing the intensity of menstrual pain in nursing students at STIKES Advaita Medika Tabanan.

Keywords: adolescents; effectiveness; menstrual pain; nursing; turmeric herbal medicine

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INTRODUCTION

Menstrual cramps are pains that occur during a woman's period, typically felt in the lower abdomen during the menstrual cycle. The pain is usually felt before, during, and after menstruation and can be persistent and worsen until it becomes unbearable, disrupting all activities during menstruation. (Adinda Aprilia et al., 2022) According to 2022 World Health Organization (WHO) data, 1,769,425 women (90%) aged 17-24 years experienced menstrual pain (Syafriani, 2021). In Indonesia, the prevalence of menstrual cramps is 64.25%, consisting of primary cramps at 54.89% and secondary cramps at 9.36%. In 2022, the prevalence of primary cramps increased to 64.8% and secondary cramps to 19.36% (Uni et al., 2022).

The prevalence of menstrual pain in Bali Province has not been officially reported, but several studies have shown that the incidence is high in Bali. According to research by Silaen et al. (2021), 74.42% of adolescent girls in Bali still experience menstrual pain (Artawan et al., 2022). Based on the results of a preliminary survey conducted by Ariyanti et al. (2022) among several women in Tabanan in 2022, 96% of women have experienced menstrual pain (Ariyanti et al., 2022).

Menstrual pain has negative effects, both long-term and short-term. Long-term effects include menstrual pain can lead to infertility. In the short term, menstrual pain can affect daily activities, especially for female students attending lectures. These symptoms include difficulty concentrating, frequent absences from lectures, emotional conflict, tension, anxiety, and disruption to learning. This can lead to discomfort, decreased learning engagement, some falling asleep in class during class, limited physical activity, and absenteeism (Karlinda et al., 2022).

Non-pharmacological management includes regular exercise, warm compresses, and acupressure. Effective non-pharmacological management includes turmeric and tamarind to reduce menstrual pain. Turmeric contains curcumin and anthocyanins, which inhibit cyclooxygenase, thereby reducing inflammation and inhibiting uterine contractions. Curcumenal, a compound found in turmeric, acts as an analgesic agent that can reduce prostaglandin production (Sari & Winarni, 2023).

A preliminary study conducted at STIKES Advaita Medika Tabanan found that the total number of female students at STIKES Advaita Medika Tabanan was 72. Several nterviewed female students stated they were unaware that menstrual pain is also called menstrual cramps. Of the 15 female students interviewed, 13 reported experiencing menstrual cramps during their periods. Ten of these female students reported experiencing menstrual cramps so much that they disrupted their concentration during class. Eight of the 10 female students reported frequently leaving class to take breaks during their menstrual cramps. Based on these interviews, it can be concluded that there has been no research specifically examining the impact of menstrual cramps on academic productivity, pain severity, contributing factors, and coping strategies employed by female students on campus. Therefore, based on the background described above, the researcher was interested in determining the effectiviness of turmeric and tamarind herbal medicine in reducing menstrual pain intensity among female nursing students at STIKES Adviata Medika Tabanan.

METHOD

The research design used in this study employed a qualitative approach with a pre-experimental, one-group pretest-posttest design. The aim was to obtain a picture before and after the intervention/treatment given to one group. The population in this study was 72 female nursing students. The sampling technique used was purposive sampling, with a sample size of 16 respondents. This study was conducted at STIKES Advaita Medika Tabanan. Data collection took place in June-July 2025. Data collection tools used turmeric herbal medicine, informed consent forms, and questionnaires.

RESULT

Overview of the Research Location

The research was conducted at the Advaita Medika Tabanan Health College (STIKES) campus, specifically at Jl. Perkutut No. 25, Pasekan Belodan, Tabanan. The STIKES campus includes a nursing study program with 72 students, a midwifery study program with 44 students, and 12 nursing professionals. The campus is equipped with modern facilities to support teaching and learning and research, such as fully equipped laboratories, a library, and practice rooms (Profile of STIKES Advaita Medika Tabanan 2025).

Respondent Characteristics

Table 1 shows that of the 16 respondents, the highest frequency of respondents was 19 years old (8 people) (50%). Table 2 shows that of the 16 respondents, the highest frequency of respondents experiencing mild stress was 10 (62.5%). Table 3 shows that of the 16 respondents, the highest frequency of respondents experiencing irregular menstrual cycles was 9 (56.3%). Table 4 shows that of the 16 respondents, the highest frequency of respondents experiencing menstrual cycles <28 days was 14 (87.5%). Table 5 shows that of the 16 respondents, the highest frequency of respondents experiencing menstrual cycles lasting 4-7 days was 14 (87.5%). Table 6 shows that of the 16 respondents, the highest frequency of respondents experiencing menstrual pain was on the first day of menstruation was 13 (81.3%).

Table 1.
Frequency Distribution of Respondents According to Age of Nursing Students

Age	f	%
18 years	3	18.8
19 years	8	50.0
20 years	4	25.0
21 years	1	6.3

Table 2.
Frequency Distribution of Respondents According to Stress Level in Nursing Students

Stress Level	f	%
Mild	10	62.5
Moderate	4	25.0
Severe	2	12.5

Table 3.
Frequency Distribution of Respondents According to Menstrual Cycle in Nursing Students

Menstrual Cycle	f	%
Irregular	9	56.3
Regular	7	43.8

Table 4.
Frequency Distribution of Respondents According to Menstrual Cycle Length in Nursing Students

Menstrual cycle length	f	%
<28 hari	9	56.3
>28 hari	7	43.8

Table 5.
Frequency Distribution of Respondents According to Menstrual Duration in Nursing Students

Menstrual period	f	%
2-3 days	2	12.5
4-7 days	14	87.5

Table 6.
Frequency Distribution of Respondents According to the Day of Menstrual Pain in Nursing Students

The day of menstrual pain	f	%
Day 1	13	81.3
Day 2	3	18.8

Table 7.
The Effect of Giving Turmeric and Tamarind Herbal Medicine on Reducing the Intensity of Menstrual Pain in Nursing Students at Advaita Medika Tabanan Health College

Giving turmeric and tamarind herbal medicine	N	Mean Rank	Sum of Rank	Nilai Z	Z tabel	*p-value*
Post test-pre test						
Negative Ranks	13	7.00	91.0	-3.286	0,0006	0.001
Positive Ranks	0	0.00	0.00			
Ties	3					

Table 7 shows that to determine the effect of turmeric and tamarind herbal medicine on reducing menstrual pain in nursing students, statistical tests were conducted using SPSS. The results of the statistical analysis using the Wilcoxon Rank Test showed that 16 respondents experienced reduced menstrual pain after being given turmeric and tamarind herbal medicine, and 3 respondents exhibited similar behavior before and after being given turmeric and tamarind herbal medicine. The Wilcoxon Rank Test (p-value = 0.001) indicates a difference in menstrual pain intensity between

before and after being given turmeric and tamarind herbal medicine, as the p-value <0.05.

DISCUSSION

Based on the results of the study of menstrual pain before being given turmeric tamarind herbal medicine intervention in nursing students at STIKES Advaita Medika Tabanan, it was found that from 16 respondents, most of them experienced moderate menstrual pain before being given the intervention and experienced mild menstrual pain after being given turmeric tamarind herbal medicine intervention as many as 10 respondents. Based on the Wilcoxon test, the p-value for menstrual pain was 0.001 (p <0.05), so it can be concluded that in this study H0 was rejected and Ha was accepted, which means that there was an effect of consuming turmeric tamarind herbal medicine on menstrual pain in nursing students at STIKES Advaita Medika Tabanan. Turmeric is a plant that is often planted in yards, pots and even agricultural land. The main part of the turmeric plant that is widely used is the rhizome. In addition to being a natural dye and flavoring in food, the use of turmeric rhizomes can be used as herbal medicines such as turmeric tamarind. Turmeric has many health benefits, including treating wounds, stomach aches, ulcers, and pain relief (Rustini et al., 2024). In fact, turmeric is believed to contain powerful nutrients that act as antioxidants, anti-inflammatories (reducing inflammation), and antibacterials (Fadhillah & Futriani, 2025).

According to researchers, an intervention involving turmeric and tamarind for nursing students experiencing menstrual pain reduced the pain. The researchers found that 13 of the 16 respondents experienced moderate menstrual pain before the turmeric and tamarind herbal medicine intervention, while 10 experienced mild dysmenorrhea after the turmeric and tamarind herbal medicine intervention. This turmeric and tamarind and palm sugar herbal medicine was administered for three days at a dose of 250ml each time after meals. Therefore, turmeric and tamarind herbal medicine can be used as an alternative non-pharmacological treatment for adolescent girls to reduce menstrual pain during menstruation.

The results according to (Pertiwi, 2024) with the title "The Effect of Turmeric Tamarind Drink Consumption on Primary Dysmenorrhea in Adolescent Girls at MTS Walisongo" are known to have 27 respondents, it was found that most of the respondents who attended MTS Wali Songo Pasrujambe had moderate pain before being given the Turmeric Tamarind Drink as many as 27 respondents (84.4%), after being given the Turmeric Tamarind Drink from 27 respondents to 23 respondents (71.9%) experienced a decrease in pain to mild pain and 4 respondents (12.5%) still experienced moderate pain. The intervention was carried out for 3 days starting from the first day of menstruation to the third day of menstruation where in one administration of 200ml once a day. The results of the analysis showed a p-value showing a value of 0.000 (p <0.05), which means there is an effect before and after consuming turmeric tamarind herbal medicine on primary dysmenorrhea in adolescent girls at MTS Wali Songo. Turmeric is known to contain active ingredients that act as analgesics or pain relievers, similar to tamarind, which has similar properties. By consuming turmeric and tamarind drinks, young women can expect these compounds to help reduce inflammation and relax uterine muscles, thereby alleviating menstrual pain.

CONCLUSION

Based on the results of research and discussion regarding the effect of giving turmeric and tamarind herbal medicine on reducing the intensity of menstrual pain in nursing students at STIKES Advaita Medika Tabanan, it can be concluded that there is an effect of giving turmeric and tamarind herbal medicine on reducing the intensity of menstrual pain in nursing students at STIKES Advaita Medika Tabanan.

REFERENCES

Adinda Aprilia, T., Noor Prastia, T., & Saputra Nasution, A. (2022). Hubungan Aktivitas Fisik, Status Gizi Dan Tingkat Stres Dengan Kejadian Dismenore Pada Mahasiswi Di Kota Bogor. Promotor, 5(3), 296–309. https://doi.org/10.32832/pro.v5i3.6171

Ariyanti, K. S., Sariyani, M. D., & Winangsih, R. (2022). Terapi Non Farmakologis untuk Mengurangi Nyeri Haid pada Remaja di Tabanan. Jurnal Kebidanan Malakbi, 3(2), 58. https://doi.org/10.33490/b.v3i2.612

Artawan, I. P., IKetut Alit Adianta, Ik. A. A., & Ida Ayu Manik Damayanti, I. A. M.

D. (2022). Hubungan Nyeri Haid (Dismenore Primer) Dengan Kualitas Tidur Pada Mahasiswi Sarjana Keperawatan Tingkat Iv Itekes Bali Tahun 2022. Jurnal Riset Kesehatan Nasional, 6(2), 94–99. https://doi.org/10.37294/jrkn.v6i2.412

Fadhillah, A. C. R., & Futriani, E. S. (2025). Efektivitas Pemberian Kunyit Asam terhadap Penurunan Skala Nyeri Dismenore Pada Remaja Putri di SMAN

2 Karawang. MAHESA: Malahayati Health Student Journal, 5(5), 1858–1868. https://doi.org/10.33024/mahesa.v5i5.1 7076

Karlinda, B., Oswati Hasanah, & Erwin. (2022). Gambaran Intensitas Nyeri, Dampak Aktivitas Belajar, dan Koping Remaja yang Mengalami Dismenore. Jurnal Vokasi Keperawatan (JVK), 5(2), 128–137. https://doi.org/10.33369/jvk.v5i2.2331 0

Pertiwi, P. M., Retnaningsih, R., & Ilmiah, W. S. (2024). Pengaruh Konsumsi Minuman Kunyit Asam terhadap Disminore Primer pada Remaja Putri di MTS Walisongo. Jurnal Ilmiah Kesehatan Rustida, 11(2), 144–153. https://doi.org/10.55500/jikr.v11i2.232

Rustini, A., Nafisah, F., Anjani, J., Patmawati, N., Salifiyah, S., Jahronah, S., Sumiati, S., & Rahmatul Amin, D. (2024). Pemberdayaan Perempuan Untuk Mengatasi Nyeri Haid Dengan Jamu Kunyit Asam. Jurnal Pengabdian Kepada Masyarakat Nusantara, 5(2), 2064–2068. https://doi.org/10.55338/jpkmn.v5i2.31 78

Sari, K. M., & Winarni. (2023). Pengaruh Pemberian Kunyit Asam Terhadap Penurunan Dismenorea Pada Remaja. Jurnal Ilmu Kesehatan Dan Kedokteran, 1(4), 2986–7886.

Syafriani, S. (2021). Hubungan Status Gizi Dan Umur Menarche Dengan Kejadian Dismenore Pada Remaja Putri Di Sman 2 Bangkinang Kota 2020.

Jurnal Ners, 5(1), 32–37. https://doi.org/10.31004/jn.v5i1.1676

Uni, J., Akhfar, K., Arfi, A., & Khaera, N. (2022). Hubungan Indeks Massa Tubuh (Imt) Dengan Kejadian Dismenorea Di Kabupaten Bulukumba. Jmns, 4(1), 39–45. https://doi.org/10.57170/jmns.v4i1.86