

The Effect Of White Ginger Extract And Parity On Dyspareunia In Postpartum Women

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Abstract

Problem statement. One of the problems that mothers often complain about after postpartum is pain during sexual intercourse. This causes mothers to feel afraid and reluctant to engage in sexual activity. One effort to relieve this pain is by consuming ginger drink. **Aim of the study.** The aim of this study was to analyze the effect of white ginger extract and parity on dyspareunia in postpartum mothers. **Methodology.** Research design quasi experimental design shape nonequivalent control group design. The population is 100 postpartum mothers. Sampling technique nonprobability sampling by taking samples insidental sampling for 3 months at Pratama Anugrah Clinic Surabaya in 2024. Independent variables White Ginger Extract and parity, dependent variable dyspareunia, questionnaire research instrument, data analyzed using the Multiple Logistic Regression test. **Main findings.** The results showed that almost half of the mothers who were not given White Ginger Extract (48%) experienced moderate dyspareunia, while the mother given White Ginger Extract the majority (70%) experienced mild dyspareunia. Simultaneous results $F(p=0.001)$ means that there is a significant effect of white ginger extract and parity on dyspareunia in postpartum women. Partially there was an effect ($p=0.001$) of white ginger extract on dyspareunia, but for parity there was no effect ($p=0.579$) on the incidence of dyspareunia. **Conclusion.** The more mothers want to consume ginger drink before sexual activity, the smaller the risk of mothers experiencing dyspareunia. Parity has no effect on the incidence of dyspareunia experienced by postpartum mothers

Keywords: Dyspareunia, White Ginger Extract, Parity, Postpartum

1. Introduction

Divorce cases often occur in husband and wife relationships that cannot resolve their problems. In 2023, there will be 5,454 recorded divorce cases in Surabaya (Rahman Fauzi 2024). There are quite a lot of influencing factors, one of which is the husband's dissatisfaction regarding his sexual needs. Most mothers feel unprepared for sexual intercourse, not because they don't want to but because fear dominates. Failure to adapt or failure to fulfill these needs will become a new problem, not only for household harmony but can even lead to depression in the mother.

Pallavi research (2021) stated that effectiveness of ginger powder is comparable to that ibuprofen for management of pain and gingival inflammation (Menon et al. 2021). Soheila research (2024) stated ginger

is more effective than placebo in relieving pain of review of 60 articles (Nazarpour and Simbar 2024). Hajar research (2018) stated that Ginger and Novafen is effective in relieving pain primary dysmenorrhea (Adib Rad et al. 2018). Dwi's research (2016) states that there is an influence of parity on the sexual function of postpartum mothers ($p = 0.006$) (Masita 2016).

The physical and mental health of mothers after giving birth is a priority and concern for both health workers and families. But in reality the attention is more on the baby than the mother. There are even some husbands who demand that their wives always serve them without looking at the wife's condition and circumstances as well as sexual relations. Therefore, a study on efforts to reduce pain during sexual intercourse after giving birth by drinking white ginger extract could be an option as an alternative solution.

This study aims to analyze how strong the influence of white ginger extract and parity is on the incidence of dyspareunia in postpartum or postpartum mothers. Mothers can consume white ginger extract mixed with warm water before having sexual intercourse after giving birth.

2. Materials and methods

2.1 Materials

Study *quasi experimental design* shape *nonequivalent control group design*. The population is 100 postpartum mothers up to 6 months. Sampling technique *nonprobability sampling* by taking samples *insidental sampling* for 3 months at Pratama Anugrah Clinic Surabaya in 2024. Independent variables white ginger extract and parity, dependent variable dyspareunia. Respondents were divided into 2 groups, namely the intervention group and the control group. Control group respondents will be asked to fill out a questionnaire and have dyspareunia measured using the NRS pain scale. The intervention group was given white ginger extract which was consumed and then given a questionnaire and measured using the NRS pain scale.

2.2 Data collection procedures

This research was declared ethically appropriate by the Research and Health Ethics Committee of Universitas Nahdlatul Ulama Surabaya with certificate number 0134/EC/KEPK/UNUSA/2024 on March 25 2024. Data was collected for 3 months (April - June) 2024.

2.3 Data analysis

The data was processed with the SPSS program and analyzed using the Multiple Logistic Regression test.

3. Results and discussion

3.1 Results

Table 1 Characteristics of respondents based on age, education and occupation

Category	n	%
Age		
< 20 years	3	3
20 -35 Years	88	88
> 35 Years	9	9
Education		
Base	7	7
Secondary	83	83
Height	10	10
Work		
Doesn't work	75	75
Work	25	25

Table 1 shows that almost all (88%) mothers are aged between 20 – 35 years, almost all (83%) have

secondary education, most (75%) do not work.

Table 2 Characteristics of respondents based on administration of white ginger extract, parity and incidence of dyspareunia.

Category	n	%
Giving white ginger extract		
Yes	50	50
No	50	50
Parity		
Primiparous	8	8
Multiparous	90	90
Grandemultiparous	2	2
Dyspareunia		
No Pain	16	16
Light	54	54
Currently	25	25
Heavy	5	5

Table 2 shows that half (50%) of the mothers given white ginger extract, almost all (90%) were multiparous, most (54%) experienced mild dyspareunia.

Table 3 Cross tabulation of administration of white ginger extract with dyspareunia

Giving white ginger extract	Dyspareunia				Amount n (%)
	No Pain n (%)	Light n (%)	Currently n (%)	Heavy n (%)	
Yes	14 (28)	35 (70)	1 (2)	0 (0)	50 (100)
No	2(4)	19 (38)	24(48)	5 (10)	50 (100)

p=0.001

Table 3 shows that most of the mothers who were given white ginger extract (70%) experienced mild dyspareunia and almost half (48%) of mothers who were not given white ginger extract experienced moderate dyspareunia.

Table 4 Cross tabulation of parity with dyspareunia

Parity	Dyspareunia				Amount n (%)
	No Pain n (%)	Light n (%)	Currently n (%)	Heavy n (%)	
Primiparous	0 (0.0)	5 (62.5)	3 (37.5)	0 (0.0)	8 (100)
Multiparous	15 (16.7)	48 (53.3)	22 (24.4)	5 (5.6)	90 (100)
Grandemultiparous	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)	2 (100)

p=0.579

Table 4 shows that the majority of primiparous mothers (62.5%) experienced mild dyspareunia, the majority of multiparous (53.3%) experienced mild dyspareunia, and half of the grandemultiparous (50.0%) experienced mild dyspareunia.

Simultaneous test results (F) were obtained p=0.001 means there is a significant effect of white ginger extract and parity on dyspareunia in postpartum women.

3.2 Discussion

Husband and children are generally the closest family to a mother. When a mother struggles to get pregnant and then gives birth in order to have a child, the husband's active and warm role really helps the mother in completing her postpartum period. Postpartum period is recovery process for the body's organs until they return to way they before pregnancy or around 42 days after giving birth (Amalia 2019; Asih 2016; Sukma 2017; Sutanto 2019; Yanti And Sundawati 2014). In Ursula's research (2022) even stated that the risk of death in women continues to increase by 20% up to 4 months after giving birth, not just up to 42 days (Gazeley et al. 2022). Physical and psychological changes during the postpartum period affect women's sexual function (Halouani et al. 2022). It is hoped that the family's attention in meeting the mother's needs can be achieved well.

Table 2 shows that of the 100 postpartum mothers, the majority (54%) experienced mild dyspareunia. Dyspareunia is persistent pain or recurrent with sexual intercourse causing pain (Lisda Maria and SARI 2023; Mitchell et al. 2017). This means that in general postpartum mothers feel pain when having sexual relations with their husbands. This pain is caused by several factors, one of which is lack of preparation before sexual intercourse. Most mothers have direct contact with their husbands without any preparation. According to Olga (2022), one of the potential factors causing dyspareunia is younger age (Wihersaari et al. 2022). In table 2 it is known that the majority of mothers' age, 88%, is 20 - 35 years and only 3% are < 20 years old. Sexual needs are needed by everyone, both young and old, but discomfort during sexual intercourse usually occurs at the age approaching menopause.

Table 3 shows that almost half of the mothers who were not given white ginger extract (48%) experienced moderate dyspareunia, most of the mothers who were given white ginger extract (70%) experienced mild dyspareunia with a value of $p=0.001$. This shows the content in white ginger can make mothers feel relaxed, thereby reducing the risk of pain during sexual intercourse. The strong aroma of ginger mixed with hot water will make the mother feel calm and warm, thereby improving blood circulation and increasing happiness hormones. Ginger is a spice that is widely consumed and has many pharmacological properties (Sang et al. 2020). The benefits of ginger include, antioxidant, antifungal, antiviral, antibacterial, antispasmodic, antiparasitic, analgesic, insecticidal, anticarcinogenic, and anti-inflammatory (Fathiah 2022; Fayed et al. 2024). Ginger contains active substances such as gingerol, vitamin C, vitamin B6, micronutrients, phytochemicals and polyphenols. Consuming ginger will have a pain relieving effect through anti-inflammatory effects, calming the digestive system so that it can also reduce nausea (Rahayu 2022; Rokom 2024). The content of ginger extract has a total of more phenolics, flavonoids, and vitamin C than garlic (Akullo et al. 2023; Aryanta 2019). Ginger helps cleanse harmful chemicals from the body (contains the anti-oxidant high in gingerol) resulting from anxiety, so it can relieve psychological stress (Syaputri 2021). When mothers can manage stress well, their readiness for sexual intercourse will be better too. This will result in adequate lubrication of the genital area and the risk of pain during sexual intercourse will be reduced. Ginger plants grow in many areas of ASIA, one of which is Indonesia. This plant, which is rich in benefits, really helps improve health levels if it is developed optimally. Fayed in his article states that professionals in the fields of nutrition, food technology, medicine, and food chemistry consider assume ginger based food supplements to be important or indispensable (Fayed et al. 2024).

Table 4 shows that in all parity categories, including primiparous, multiparous, and grandemultiparous, the majority of mothers experienced mild dyspareunia with a p value = 0.579. This means that, in this case, the number of children, the mother's previous experience during post-partum sexual intercourse, has no effect on the pain she experiences. Other factors dominate the cause of the pain experienced. Mothers who already have postnatal experience in preparing for sexual needs, do not have an impact on the pain they experience. The majority of mothers do not prepare anything because they feel it is a normal thing, and even prefer to avoid engaging in sexual activity when they are ready even though they have to wait a long time after the postpartum period is over. Other research states that primiparous mothers are at risk of experiencing complications depending on their physical, psychological readiness and knowledge about pregnancy until postpartum (Sari and Suharto 2021). Primiparous mothers experienced anxiety 26 times in the early postpartum period compared to multiparous (Istiqhosah, Nining Aprilia; Sari

2022). In contrast to the incidence of dyspareunia, it turns out that both primiparas and multiparas still experience the same pain when engaging in sexual activity after giving birth.

The test results state p value = 0.001 (< 0.05) It means there is a significant effect of white ginger extract and parity on dyspareunia in postpartum women. If tested together, white ginger extract and parity have a significant effect on the incidence of dyspareunia. However, if tested alone, white ginger extract against dyspareunia obtained a value of $p = 0.001$, meaning that white ginger extract significantly affected dyspareunia, while parity with dyspareunia obtained a value of $p = 0.579$, meaning that parity had no effect on dyspareunia. Of the 100 respondents, it is known that almost all of their mothers' education level (83%) was secondary. In general, secondary level education can receive information well. However, based on the questionnaire recap, not many mothers know the benefits of ginger for health. Most mothers only know the benefits of ginger drink to warm the body and cough medicine. The higher the level of education, the higher the knowledge they have (Damayanti and Sofyan 2022). Knowledge regarding ginger is because it is an alternative, perhaps not many people know about it, therefore the results of related research need to be further developed and disseminated.

4. Conclusion

The more a mother wants to consume white ginger before sexual activity, the smaller the risk of the mother experiencing dyspareunia. Parity has no effect on the incidence of dyspareunia experienced by postpartum mothers

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Conflict of interest

Authors declare no conflict of interest

References

- Adib Rad, Hajar Et Al. 2018. "Effect Of Ginger And Novafen On Menstrual Pain: A Cross-Over Trial." Taiwanese Journal Of Obstetrics And Gynecology 57(6): 806–9.
- Akullo, Jolly Oder Et Al. 2023. "Phytochemical Profile And Antioxidant Activity Of Various Solvent Extracts Of Two Varieties Of Ginger And Garlic." Heliyon 9(8): E18806.
- Amalia, Rizki; Etc. 2019. *Buku Ajar Asuhan Kebidanan Pada Ibu Nifas Dan Menyusui*. Surabaya: Unusa Press.
- Aryanta, I Wayan Redi. 2019. "Health Benefits Of Ginger." E-Jurnal Widya Kesehatan 1(2).
- Asih, Yusari Dan Risneni. 2016. *Buku Ajar Asuhan Kebidanan Nifas Dan Menyusui*. Jakarta: Trans Info Media.
- Damayanti, Mesi, And Octariana Sofyan. 2022. "The Relationship Between Education Level And Community Knowledge Level In Sumberan Sedayu Hamlet, Bantul Regarding Covid-19 Prevention In January 2021." Majalah Farmaseutik 18(2).
- Fathiah, Fathiah. 2022. "Identification Of Ginger Plant (*Zingiber Officinale*) Based On Morphology." Agrifor 21(2): 341.
- Fayed, Aysam M. Et Al. 2024. "Effect Of Ginger, Chamomile, And Green Tea Extracts On Prostate Cancer Cells." Journal Of Genetic Engineering And Biotechnology 22(3): 100395.
- Gazeley, Ursula Et Al. 2022. "Women's Risk Of Death Beyond 42 Days Post Partum: A Pooled Analysis Of Longitudinal Health And Demographic Surveillance System Data In Sub-Saharan Africa." The Lancet Global Health 10(11): E1582–89.
- Halouani, S Et Al. 2022. "277 Evaluation Of The Sexual Desire Disorders In The Post-Partum Period." The Journal Of Sexual Medicine 19(Supplement 2): S232–33.
- Istiqhosah, Nining Aprilia; Sari, Aprilia Nurtika. 2022. "Effect Of Parity With Anxiety Of Breastfeeding In First

- Week Post Partumin The Covid-19 Pandemic.*” Jurnal Kebidanan 11(1).
- Lisda Maria, And Ratna Sari. 2023. “*The Effect Of Health Education On Dyspareunia In Menopause Women.*” Jurnal Kesehatan Dan Pembangunan 13(25): 76–88.
- Masita, Elly Dwi. 2016. “*Pengaruh Tingkat Pengetahuan, Paritas, Jenis Persalinan, Jenis Pekerjaan Terhadap Fungsi Seksual Ibu Nifas.*” Journal Of Health Sciences 9(2): 159–67.
- Menon, Pallavi Et Al. 2021. “*Effectiveness Of Ginger On Pain Following Periodontal Surgery – A Randomized Cross-Over Clinical Trial.*” Journal Of Ayurveda And Integrative Medicine 12(1): 65–69.
- Mitchell, Kr Et Al. 2017. “*Painful Sex (Dyspareunia) In Women: Prevalence And Associated Factors In A British Population Probability Survey.*” Bjog: An International Journal Of Obstetrics & Gynaecology 124(11): 1689–97.
- Nazarpour, Soheila, And Masoumeh Simbar. 2024. “*Effect Of Oral And Topical Ginger On Primary Dysmenorrhoea: A Systematic Review.*” Journal Of Herbal Medicine 46: 100890.
- Rahayu, Vina Puji. 2022. “*Benefits Of Ginger Drinks For The Body.*” Kemenkes.
- Rahman Fauzi, Praditya. 2024. “*There Are 5,454 Divorce Cases In Surabaya During 2023, Pa Surabaya: Down 10%.*” Detik Jatim.
- Rokom. 2024. “*Ginger, The Warming Little One.*” Mediakom.
- Sang, Shengmin, Hunter D. Snook, Fakir Shahidullah Tareq, And Yewande Fasina. 2020. “*Precision Research On Ginger: The Type Of Ginger Matters.*” Journal Of Agricultural And Food Chemistry 68(32): 8517–23.
- Sari, Oktavia Puspita, And Agung Suharto. 2021. “*The Relationship Between Maternal Age And Parity And The Incidence Of Postpartum Blues At Pmb ‘W’ Magetan.*” Gema Bidan Indonesia 10(2).
- Sukma, Dkk. 2017. *Asuhan Kebidanan Pada Masa Nifas.* Jakarta: Fakultas Kedokteran Dan Kesehatan Universitas Muhammadiyah.
- Sutanto, Andina Vita. 2019. *Asuhan Kebidanan Nifas & Menyusui Teori Dalam Praktik Kebidanan Profesional.* Yogyakarta: Pustaka Baru Press.
- Syaputri, Egi. 2021. “*Benefits Of The Ginger Plant (Zingiber Officinale) As Traditional Medicine.*” In Semnas Bio, , 579–86.
- Wihersaari, Olga Et Al. 2022. “*Sexual Activity And Dyspareunia After Pelvic Organ Prolapse Surgery: A 5-Year Nationwide Follow-Up Study.*” European Urology Open Science 45: 81–89.
- Yanti And Sundawati. 2014. *Asuhan Kebidanan Masa Nifas.* Bandung: Refika Aditama.