ACTIVITIES OF DUKU (*Lansium domesticum* Corr.) BARK EXTRACT AGAINST *Aedes aegypti* EGG STAGE

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ABSTRAK : AKTIVITAS EKSTRAK KULIT DUKU (*Lansium domesticum Corr.*) TERHADAP STADIUM TELUR *Aedes aegypti*

Latar Belakang: Strategi pengendalian dari segi vektor masih penting dan efektif dalam mengendalikan kasus dengue. Penggunaan insektisida kimiawi menjadi metode pengendalian vektor dengue dengan cepat di daerah outbreak kasus, namun dapat menimbulkan resistensi terhadap vektor nyamuk dengue. Penggunaan insektisida biologi menjadi alternatif dalam mengatasinya. *Lansium domesticum* Corr. atau duku merupakan tanaman yang tumbuh di wilayah tropis dan terbukti mengandung senyawa metabolit sekunder yang berpotensi sebagai insektisida. Stadium telur merupakan stadium ketahanan nyamuk dalam kondisi iklim yang tidak memungkinkan untuk berkembang biak. Pengendalian vektor dilakukan dengan memotong siklus hidup nyamuk lebih awal dengan pemberantasan dimulai dari stadium telur maka penyebaran nyamuk *Aedes aegypti* menjadi lebih sedikit dan menurunkan penyebaran virus dengue.

Tujuan : Tujuan penelitian ini adalah mengetahui aktivitas ekstrak kulit duku (Lansium domesticum Corr.) terhadap telur *Aedes aegypti*.

Metode : Jenis penelitian adalah penelitian eksperimental dengan pendekatan true experiment. Rancangan penelitian adalah Rancang Acak Lengkap (RAL), terdiri dari 7 konsentrasi perlakuan dan pengulangan 4 kali. Waktu penelitian pada bulan Oktober 2022. Penelitian dibagi menjadi 2 yaitu tahap ekstraksi dan tahap bioassay. Sample penelitian adalah telur nyamuk *Ae. aegypti* hasil rearing Badan Penelitian dan Pengembangan Kesehatan Baturaja, Sumatera Selatan. Tehnik pengambilan sample menggunakan purposive sampling, dengan kriteria pemilihan telur berdasarkan morfologi telur *Ae. aegypti* yang fertil.

Hasil penelitian : Berdasarkan pengamatan 24 jam, rerata telur yang tidak menetas tertinggi pada perlakuan ekstrak kulit duku terdapat pada konsentrasi 500 ppm (95%) sedangkan terendah pada konsentrasi 4000 ppm (20%), dan pada perlakuan kontrol tidak ada telur yang menetas. Hasil analisis perbedaan rerata telur nyamuk *Ae. aegypti* yang tidak menetas pada aktivitas ekstrak kulit duku, selama pengamatan 24 jam didapatkan hasil paling tidak, terdapat perbedaan rerata telur yang tidak menetas pada 2 konsentrasi pada data pengamatan 24 jam (p = 0,006). Pengamatan 48 jam rerata telur tidak menetas pada aktivitas ekstrak kulit duku tertinggi terdapat konsentrasi 500 ppm (66%) sedangkan terendah pada konsentrasi 2000 ppm (11%) pada perlakuan kontrol (99%). Tidak ada perbedaan rerata telur nyamuk *Ae. aegypti* yang tidak menetas pada konsentrasi aktivitas ekstrak kulit duku, selama pengamatan 48 jam (p = 0,14). Pada pengamatan 72 jam rerata telur yang tidak menetas tertinggi diperoleh pada konsentrasi 500 (63%) sedangkan terendah pada konsentrasi 2000 ppm (9%) dan perlakuan kontrol (97%). Analisis perbedaan rerata telur nyamuk *Ae. aegypti* yang tidak menetas pada aktivitas ekstrak kulit duku, selama pengamatan 72 jam menunjukkan paling tidak, terdapat perbedaan rerata telur yang tidak menetas pada 2 konsentrasi pada data pengamatan 72 jam (p= 0,000).

Kesimpulan : Diketahui ekstrak kulit duku (Lansium domesticum Corr.) memiliki aktivitas yang berpengaruh terhadap penetasan telur *Aedes aegypti* sebagai pemacu penetasan telur lebih cepat. Ekstrak kulit duku (L. domesticum Corr.) yang digunakan dalam penelitian ini mengandung senyawa flavonoid dan tanin. Pada perlakuan konsentrasi 500 ppm ekstrak kulit duku (L. domesticum Corr.) memiliki daya tetas yang rendah dibanding konsentrasi lain.

Saran : Perlu dilakukan penelitian lebih lanjut tentang faktor lain yang mempengaruhi daya tetas telur seperti pH, suhu, kelembaban, cahaya, kandungan oksigen, dan bahan organik lain. Serta studi lebih lanjut yang membandingkan ekstrak kulit duku sebagai ovisida dan atraktan (zat penarik) yang dapat diaplikasikan pada produk ovitrap.

Kata kunci : *Lancium domesticum* Corr., Ekstrak kulit duku, Telur *Aedes aegypti*

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ABSTRACT

Background: Vector control strategies remain crucial and effective in managing dengue cases.The use of chemical insecticides still serves as a rapid method for controlling dengue vectors in areas experiencing outbreaks, However, it can cause resistance to the dengue mosquito vector. The use of biological insecticides is an alternative to overcome this. Lansium domesticum Corr. or duku is a plant that grows in tropical regions and has been proven to contain secondary metabolite compounds that have the potential to act as insecticides. The egg stage is the resistance stage for mosquitoes in climatic conditions that do not allow them to reproduce. Implementing vector control measures to interrupt the mosquito life cycle at the egg stage can mitigate the proliferation of *Aedes aegypti* mosquitoes and reduce the transmission of the dengue virus

Purpose: The purpose of research to to investigate the efficacy of duku bark extract against *Aedes aegypti* eggs.

Methods: This research constitutes experimental research employing a true experiment approach. The research design adopted was a Completely Randomized Design (CRD), comprising 7 treatment concentrations and each treatment was replicated 4 times. The research was conducted in October 2022 and comprised two stages: the extraction stage and the bioassay stage. The research samples consisted of *Ae. aegypti* larvae obtained from the Agency for Health Research and Development, Baturaja in South Sumatra. The purposive sampling technique was employed, selecting eggs based on the morphology of *Aedes aegypti* to ensure fertility.

Results: Based on 24 hour observations, the highest average of eggs that did not hatch in the duku bark extract treatment was at a concentration of 500 ppm (95%) while the lowest was at a concentration of 4000 ppm (20%), and in the control treatment no eggs hatched. The results of the analysis of differences in the mean eggs of *Ae. aegypti* that did not hatch in the activity of duku bark extract, during 24 hour observation the results showed that there was at least a difference in the mean eggs that did not hatch at 2 concentrations in the 24 hour observation data (p = 0.006). The 48 hour observation that the average egg did not hatch was in the highest concentration of duku bark extract at a concentration of 500 ppm (66%) while the lowest was at a concentration of 2000 ppm (11%) in the control treatment (99%). There was no difference in the average of *Ae. aegypti* mosquito eggs. that did not hatch at the activity concentration of duku bark extract, during 48 hours of observation (p = 0.14). In the 72 hour observation, the highest average of unhatched eggs was obtained at a concentration of 500 (63%) while the lowest was at a concentration of 2000 ppm (9%) and control treatment (97%). Analysis of differences in mean mosquito eggs of *Ae. aegypti* that did not hatch in the activity of duku bark extract, during 72 hours of observation showed that at least there was a difference in the mean eggs that did not hatch at 2 concentrations in the 72 hour observation data (p= 0.000).

Conclusion: Based on the research findings, it was concluded that duku (*Lansium domesticum* Corr.) bark extract possesses activity that accelerates the hatching of *Ae. aegypti* eggs. The duku bark extract used in this research contains flavonoid and tannin compounds. Notably, at treatment concentrations of 500 ppm, duku (*Lansium domesticum* Corr.) bark extract exhibited lower hatchability compared to other concentrations.

Suggestion : Further research is warranted to explore additional factors influencing egg hatchability, such as pH, temperature, humidity, light, oxygen content, and other organic materials. Moreover, future research should investigate the potential of duku bark extract as an ovicide and attractant for ovitrap products.

Keywords : *Lancium domesticum* Corr., Duku bark extract, *Aedes aegypti* eggs

INTRODUCTION

Dengue fever (DF) and dengue hemorrhagic fever (DHF) are infectious diseases caused by the dengue virus. The dengue virus originates from the Arbovirus B group, namely arthropod-borne viruses or viruses spread by arthropods. This virus belongs to the Flavivirus genus of the Flaviviridae family. Transmission of dengue virus infection occurs through the bite of female Aedes mosquitoes, especially *Aedes aegypti* and *Aedes albopictus* (Putri, Triwahyuni, and Saragih, 2021). The first case of dengue fever in Indonesia was reported in Surabaya in 1968. Since its initial discovery, the incidence of dengue fever has continued to rise annually. The Ministry of Health of the Republic of Indonesia (Kemenkes RI) and the World Health Organization (WHO) Country Office Indonesia launched the National Strategic Plan (NSP) Dengue Fever Control Program (2021-2025). The national target for 2025 is a percentage of 90% of regencies/municipalities with a population incidence rate (IR) below 49/100,000 and a case fatality rate

(CFR) of 0.5% (WHO, 2021). To achieve this target, vector control strategies remain crucial and effective in managing dengue cases (Putri, et al. 2024).

Dengue vector control in Indonesia is regulated by the Indonesian Ministry of Health through the implementation of Integrated Vector Management (IVM). IVM is an integrated program that utilizes all available techniques for vector control, incorporating environmental management, biological methods, physical methods, and chemical methods. The use of chemical insecticides still serves as a rapid method for controlling dengue vectors in areas experiencing outbreaks (Putri, et al., 2023). However, the chemicals present in these insecticide products pose significant risks to human health and can contaminate the environment and food chain (Lauren et al., 2021). Additionally, the use of chemical insecticides may contribute to mosquito resistance, as their residues are not easily broken down and can enter the food chain. Therefore, there is a need for procedures that can effectively contribute to vector control using natural ingredients. The utilization of biological insecticides presents an alternative system for addressing the spread of dengue vectors.

Lansium domesticum Corr., commonly known as duku, is a plant native to tropical regions. A review analysis of research conducted over the past decade has revealed that the extraction of various parts of the *L. domesticum* Corr. plant shows promising potential as a larvicide against the larval stage of Aedes aegypti mosquitoes (Ni'mah et.al., 2015; Saputra, 2017; Mirnawaty, Supriyadi, and Jaya, 2012). *L. domesticum* Corr. has been shown to contain secondary metabolite compounds with insecticidal properties (Nandita et.al., 2019; Ni'mah et.al., 2015; Nopitasari, 2014). Phytochemical tests have identified chemical compounds in the *L. domesticum* Corr. plant, including alkaloids, flavonoids, tannins, triterpenoids, steroids, and saponins (Konda et al., 2020). Plants rich in flavonoids, alkaloids, terpenoids, saponins, tannins, and essential oils are known to possess the ability to inhibit and damage egg membranes (Madona et al., 2020). However, there remains a paucity of research reports investigating the efficacy of *L. domesticum* Corr. against Aedes aegypti eggs, warranting further research.

Female *Aedes aegypti* mosquitoes typically deposit their eggs in water containers, both artificial and natural, where the eggs can endure desiccation for weeks to months before hatching upon submersion in water (Halstead, 2008). Eggs generally hatch and develop into larvae within two days or longer, depending on the water conditions in the breeding environment. Eggs can remain viable for extended periods, up to more than a year, if stored in a dry location at temperatures ranging from -2°C to 42°C. This ability of eggs to withstand desiccation aids in the species' survival during adverse climatic conditions (WHO, 2003; Triwahyuni, Lestari, and Putri, 2020). Implementing vector control measures to interrupt the mosquito life cycle at the egg stage can mitigate the proliferation of *Aedes aegypti* mosquitoes and reduce the transmission of the dengue virus (Lauren et al., 2021).

Given this background, researchers are motivated to investigate the efficacy of duku bark extract against *Aedes aegypti* eggs. Utilizing waste from duku bark as an intervention holds potential in reducing the incidence of dengue fever.

RESEARCH METHODS

This research constitutes experimental research employing a true experiment approach. The research design adopted was a Completely Randomized Design (CRD), comprising 7 treatment concentrations: 500 ppm, 1000 ppm, 2000 ppm, 4000 ppm, 6000 ppm, 8000 ppm, 10000 ppm, and one control. Each treatment was replicated 4 times to assess the impact of varying concentrations of duku (*L. domesticum* Corr.) bark extract. The research was conducted in October 2022 and comprised two stages: the extraction stage and the bioassay stage. The extraction stage took place at the Medical Chemistry Laboratory of Universitas Malahayati and the Laboratory of Politeknik Negeri Lampung (Polinela), while the bioassay stage took place at the Entomology Laboratory of the Agency for Health Research and Development (Balitbangkes) in Baturaja.

The research samples consisted of *Aedes aegypti* larvae obtained from the Agency for Health Research and Development, Baturaja in South Sumatra. The purposive sampling technique was employed, selecting eggs based on the morphology of *Aedes aegypti* to ensure fertility (Figure 1). Only eggs displaying perfect round or oval shapes under microscopic examination were included, while imperfect eggs (hollow, non-oval, or damaged) were excluded from the research sample.

The extraction stage involved transforming dried duku bark into powder, followed by maceration for 3x24 hours with 96% ethanol. Subsequently, the duku bark macerate was taken to the Laboratory of Polinela in Bandar Lampung for evaporation using a Vacuum Rotary Evaporator until an extract was obtained. The subsequent stage involved a bioassay test, wherein eggs were placed into plastic cups at a quantity of 25 eggs per cup. The test solution

prepared was poured into each cup according to the designated treatment concentration, with the control treatment receiving only distilled water. Primary data consisted of the direct observation of the number of eggs that failed to hatch within 24 hours, 48 hours, and 72 hours at each concentration of duku (*L. domesticum* Corr.) bark extract, recorded in tabular form.

Statistical testing involved conducting a normality test using Kolmogorov-Smirnov. If the data were normally distributed, One-Way ANOVA was employed; otherwise, the data were tested using Kruskal-Wallis. Ethical approval for this research was obtained from the Research Ethics Commission of Universitas Malahayati under the reference number 3321/EC/KEP-UNMAL/III/2023.
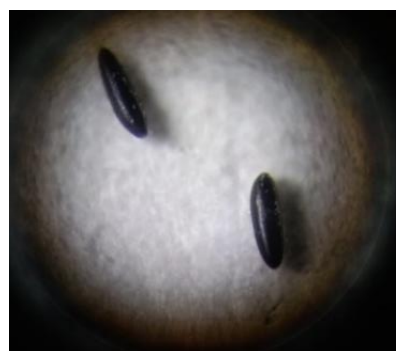

Figure 1. *Aedes aegypti* Eggs as research samples (microscopic)

RESEARCH RESULTS

Table 1
Percentage and Analysis of Differences in Average *Aedes aegypti* Eggs that Failed to Hatch upon Treatment with Duku Bark Extract during 24-Hour Observation

Concentration (ppm)	Average *Aedes aegypti* Eggs that Failed to Hatch	Percentage (%)	Minimum - Maximum	p
500	23	95	(22-25)	
1000	13	53	(4-25)	
2000	11	45	(0-19)	
4000	5	20	(3-8)	0.006*
6000	13	51	(8-17)	
8000	20	78	(13-25)	
10000	20	80	(7-25)	
0	25	100	(25-25)	

*Kruskal Wallis Test

Based on Table 1, it was observed that the highest percentage of unhatched eggs occurred at a concentration of 0 ppm (control), reaching 100%, while the lowest percentage of unhatched eggs occurred at a concentration of 4000 ppm (20%). The results of the normality test using Kolmogorov-Smirnov indicated non-normal distribution of the 24-hour observation data (p-value: 0.046). Consequently, the Kruskal-Wallis test was conducted, yielding a p-value of 0.006. This suggests that there is at least one significant difference in the average number of unhatched eggs between two concentrations during the 24-hour observation period.

Table 2
Percentage and Analysis of Differences in Average *Aedes aegypti* Eggs that Failed to Hatch upon Treatment with Duku Bark Extract during 48-Hour Observation

Concentration (ppm)	Average *Aedes aegypti* Eggs that Failed to Hatch	Percentage (%)	Minimum - Maximum	p
500	22	66%	(4-23)	0.014*
1000	4	17%	(2-7)	
2000	3	11%	(0-6)	

4000	4	17%	(1-8)
6000	8	33%	(1-13)
8000	10	41%	(4-13)
10000	6	24%	(1-14)
0	25	99%	(24-25)

*Kruskal Wallis Test

Based on Table 2, it was observed that the highest percentage of unhatched eggs occurred at a concentration of 0 ppm (control), accounting for 99%, while the lowest percentage of unhatched eggs occurred at a concentration of 2000 ppm (11%). The normality test results indicated non-normal distribution of the 48-hour observation data (p-value: 0.029), and the interpretation of the Kruskal-Wallis test also indicated a significant difference in the average number of unhatched eggs between the two concentrations during the 48-hour observation period (p-value: 0.14).

Table 3
Percentage and Analysis of Differences in Average *Aedes aegypti* Eggs that Failed to Hatch upon Treatment with Duku Bark Extract during 72-Hour Observation

Concentration (ppm)	Average *Aedes aegypti* Eggs that Failed to Hatch	Percentage (%)	Minimum - Maximum	p
500	16	63%	(2-23)	0,000*
1000	4	13%	(0-7)	
2000	2	9%	(0-5)	
4000	4	15%	(1-8)	
6000	8	33%	(1-13)	
8000	10	40%	(4-13)	
10000	4	16%	(1-6)	
0	24	97%	(23-25)	

*One way Anova test

Based on Table 3, it was observed that the highest percentage of unhatched eggs occurred at a concentration of 0 ppm (control), accounting for 97%, while the lowest percentage of unhatched eggs occurred at a concentration of 2000 ppm (9%). The normality test conducted on the 72-hour observation revealed normally distributed data (p-value: 0.096), thus enabling the continuation of the One-Way ANOVA test. The test results indicated a significant difference in the average number of unhatched eggs between the two concentrations during the 72-hour observation period (p-value: 0.000).

Table 4
Phytochemical Test Results of Duku (*Lansium domesticum* Corr.) Bark Extract

Phytochemical test	Results	Information
Alkaloids	-	Absence of sediment
Flavonoids	+	Presence of yellow coloration
Steroids	-	Absence of blue coloration
Tannins	+	Presence of blackish-brown coloration
Saponins	-	Absence of foam

Phytochemical tests were conducted on duku (*Lansium domesticum* Corr.) bark extract to identify the compounds present in the bark extract (Table 4). The results indicate that duku bark extract contains flavonoids and tannins.

DISCUSSIONS

Aedes aegypti belongs to the insect class and the Culicidae family. It undergoes four stages of development in its life cycle: egg, larvae, pupa, and adult. The embryonic development period before the egg stage occurs lasts for 48 hours in warm and humid environments. Following complete embryonic development, the eggs hatch and develop into larvae

within two days or longer, depending on the water conditions in the breeding environment. It's noteworthy that eggs submerged in water may not hatch simultaneously (Purnama, 2017).

Based on 24-hour observation, the lowest average number of unhatched eggs in the duku bark extract treatment was observed at a concentration of 4000 ppm, with 5 unhatched eggs, while no eggs hatched in the control treatment. This occurrence suggests that the eggs in the control treatment might not have been submerged in water for a sufficient duration. Based on 48-hour observation, the lowest average number of unhatched eggs in the duku bark extract treatment was observed at a concentration of 2000 ppm, with 3 unhatched eggs, while in the control treatment, 24 eggs failed to hatch. Although some eggs began to hatch in the control treatment, those treated with duku (*Lansium domesticum* Corr.) bark extract hatched more rapidly. Whereas, based on 72-hour observation, the lowest average number of unhatched eggs in the duku bark extract treatment was observed at a concentration of 2000 ppm, with 2 unhatched eggs, while in the control treatment, 24 eggs failed to hatch.

According to theory, *Aedes aegypti* eggs typically hatch into larvae after approximately 2 days of submersion in water. However, in the control treatment, only 3 eggs hatched after 72 hours of observation. The *Aedes aegypti* eggs used in this research were fertile or fertilized eggs, implying that prolonged submersion in water should lead to their hatching into larvae. Consequently, after 72 hours of observation, all eggs in the control treatment were dissected to confirm the presence of *Aedes aegypti* embryos within, indicating their fertility.
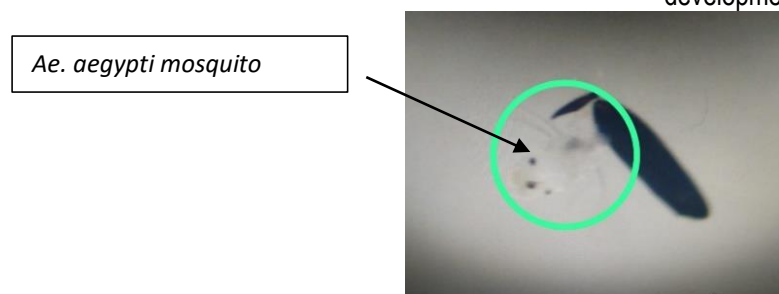

Ae. aegypti mosquito

Figure 2. Dissection of control treated *Aedes aegypti* eggs after 72 hours

The few eggs that hatched in the control treatment were likely influenced by environmental factors, as indicated by Suparyati & Himam (2021), which reported that the hatching of *Aedes aegypti* mosquito eggs is affected by various factors such as

pH, temperature, humidity, light, and oxygen content. Eggs that failed to hatch were carefully pierced and dissected using a fine needle to confirm the presence of embryos and to compare the condition of the eggs before and after exposure to duku extract. Figure 2 illustrates that eggs treated with duku extract underwent a notable physical transformation from their typical oval shape and swollen appearance, indicative of embryo presence, to a deflated state emitting a thick liquid with hyphae. The thick liquid with hyphae represents the embryo, which is presumed to be incapable of developing into larvae. Additionally, intact embryos were observed in some unhatched eggs, further confirming the fertility of all eggs selected for the control treatment.

Duku extract is presumed to act as an ovicide, inhibiting egg hatching. This is attributed to the presence of secondary metabolite compounds in the duku plant, which possess potential as botanical insecticides against Aedes aegypti. Thin-layer chromatography tests have revealed that the ethanol extract of duku fruit peel contains flavonoids and saponins (Fidiana, Mifbakhuddin, & Nurullita, 2013). Duku fruit peel is known to contain a significant amount of seco-onoceranoids, a type of triterpenoid in the form of lansic acid and lanxiolic acid, both of which are toxic. Lansic acid in duku fruit peel is toxic and can be utilized as arrow poison (Salim, 2016). Phytochemical tests conducted on duku (*Lansium domesticum* Corr.) bark utilized in this research have revealed the presence of flavonoid and tannin compounds. However, unlike previous sources, the duku bark used in this research did not contain saponin and terpenoid compounds. Similar research conducted by Saputra (2017) has indicated that saponin acts as an entomotoxin, inhibiting the development of eggs into larvae by damaging the membrane, allowing other active compounds to enter the egg and induce developmental changes in *Aedes aegypti* eggs. Triterpenoids play a crucial role in preventing eggs from hatching into larvae, as they belong to the class of compounds. Furthermore, other compounds with hormone activity include triterpenoids and saponin. Saponin, as an entomotoxin, can cause damage and death to eggs, reproductive disorders in female insects, and fertility issues. It works by interacting with the cuticle membrane of *Aedes aegypti* eggs, ultimately altering the structure of the cell membrane and leading to membrane damage, which may result in egg death (Oktafiana, 2018).

These compounds were expected to inhibit egg hatching. However, the research results obtained revealed that the duku bark extract used was unable to inhibit egg hatching. Conversely, the

treatment group given duku bark extract resulted in more rapid egg hatching compared to eggs in the control treatment. Across each treatment, variations were observed in the average egg hatching rate for each observation period. Concentrations of 1000 ppm, 2000 ppm, and 4000 ppm exhibited the highest egg hatching rates, while concentrations of 500 ppm and 8000 ppm exhibited the lowest *Aedes aegypti* egg hatching rates. This discrepancy may be attributed to the presence of compounds or organic materials conducive to egg development, as described by Agustin et al. (2017), who explained that *Aedes aegypti* mosquitoes prefer to lay their eggs in a medium rich in organic material to support the survival and growth of subsequent offspring. This assertion aligns with the findings of Pineda-Cortel et al. (2019), who noted that various factors contribute to variations in the insecticidal activity of plant extracts, including plant species, plant parts utilized, age of plant parts (young, mature, or old), target vector species, solvent polarity of the extract, and composition of extract compounds. Additionally, there are suggestions that the duku bark extract produced may not be sufficiently thick and concentrated, as described by Rusmiati (2010), who explained that ideal conditions for duku extract should be in a thick, paste-like consistency. Although the extract in this research met the criteria for a satisfactory yield value, i.e., exceeding 10% (Badriyah & Farihah, 2022), a limitation of this research lies in the post-evaporation extract, which still contains a residual amount of liquid. Consequently, the extract, which was expected to inhibit egg hatching, exhibited the opposite effect.

CONCLUSIONS

Based on the research findings, it was concluded that duku (*Lansium domesticum* Corr.) bark extract possesses activity that accelerates the hatching of *Aedes aegypti* eggs. The duku bark extract used in this research contains flavonoid and tannin compounds. Notably, at treatment concentrations of 500 ppm, duku (*Lansium domesticum* Corr.) bark extract exhibited lower hatchability compared to other concentrations.

SUGGESTION

Further research is warranted to explore additional factors influencing egg hatchability, such as pH, temperature, humidity, light, oxygen content, and other organic materials. Moreover, future research should investigate the potential of duku bark extract as an ovicide and attractant for ovitrap products.

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ANALYSIS OF THE REGULARITY OF ANTENATAL CARE (ANC) VISITS WITH ANEMIA IN PREGNANT WOMEN

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ABSTRAK : ANALISIS KETERaturan KUNJUNGAN ANTENATAL CARE (ANC) DENGAN ANEMIA PADA IBU HAMIL

Latar Belakang: Sebanyak 40% kematian ibu di negara berkembang berhubungan secara tidak langsung dengan anemia pada kehamilan. Angka kejadian anemia pada ibu hamil pada tahun 2022 berkisar antara 20%-89%. Prevalensi anemia pada ibu hamil di dunia sebesar 38,2%. Kematian ibu di negara-negara berkembang berhubungan dengan anemia pada kehamilan, yang penyebabnya adalah kekurangan zat besi, yang merupakan penyebab utama morbiditas. Pemerintah telah lama mempunyai program pemberian suplemen zat besi sebanyak 90 kali kepada ibu hamil selama kehamilan dan mewajibkan kunjungan ANC minimal 6 kali selama kehamilan.

Tujuan: Penelitian ini dilakukan dengan tujuan untuk mengetahui hubungan kunjungan rutin Antenatal Care (ANC) dengan kejadian anemia pada ibu hamil di Puskesmas Pendopo Kabupaten Empat Lawang.

Metode: Jenis penelitian ini menggunakan metode analitik dan pendekatan cross sectional. Jumlah sampel sebanyak 66 ibu hamil yang diambil secara purposive sampling dengan analisis uji chi square.

Hasil: Hasil penelitian menunjukkan 59,1% ibu hamil memiliki kunjungan ANC yang tidak teratur, 72,7% ibu hamil tidak mengalami anemia.

Kesimpulan: Terdapat hubungan antara keteraturan kunjungan Antenatal Care (ANC) dengan kejadian anemia pada ibu hamil (p=0,020).

Saran: Sebaiknya pihak Puskesmas bersama kader Posyandu lebih aktif dalam memberikan informasi melalui mengadakan kelas bagi ibu hamil mengenai jadwal pelaksanaan ANC bagi ibu hamil dan risiko mengalami anemia.

Kata Kunci: Anemia pada Ibu Hamil, Keteraturan Kunjungan Antenatal Care (ANC).

ABSTRACT

Background: As many as 40% of maternal deaths in developing countries are indirectly related to anemia in pregnancy. The incidence of anemia in pregnant women in 2022 will range between 20%-89%. The prevalence of anemia in pregnant women in the world is 38.2%. Maternal deaths in developing countries are related to anemia in pregnancy, the cause of which is iron deficiency, which is an important underlying cause of morbidity. The government has long had a program to give pregnant women 90 iron supplements during pregnancy and requires ANC visits at least 6 times during pregnancy.

Objective: This research was conducted with the aim of finding out the relationship between regular Antenatal Care (ANC) visits and anemia in pregnant women at the Pendopo Health Center, Empat Lawang Regency.

Method: This type of research uses analytical methods and a cross sectional approach. The total sample was 66 pregnant women taken by purposive sampling with chi square test analysis.

Results: The results of the study showed that 59.1% of pregnant women had irregular ANC visits, 72.7% of pregnant women did not experience anemia.

Conclusion: There is a relationship between the regularity of Antenatal Care (ANC) visits and anemia in pregnant women (p = 0.020).

Suggestion: The Community Health Center together with Posyandu cadres should be more active in providing information through holding classes for pregnant women regarding the ANC implementation schedule for pregnant women and the risks of experiencing anemia.

Keywords: Anemia in Pregnant Women, Regularity of Antenatal Care (ANC) Visits

INTRODUCTION

The success of maternal health programs can be assessed through the main indicator Maternal Mortality Rate (MMR). The World Health Organization (WHO), stated that the MMR in 2022 is very high, around 830 women will die from complications related to pregnancy or childbirth throughout the world every day. About 303,000 women die during and after pregnancy and childbirth. This data shows that the prevalence of MMR is still high and it is hoped that countries in the world can achieve the targets set by the Sustainable Development Goals (SDGs).

SDGs is a sustainable development program established by the UN to achieve a better and more sustainable life. In the SDGs there are 17 goals with 169 targets which are expected to be achieved by 2030, namely no poverty, zero hunger, good health and well being, quality education. , gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and industrial infrastructure. , innovation and infrastructure), reducing inequality, cities and sustainable thinking (sustainable cities and communities), responsible consumption and production, handling climate change (climate action), ocean ecosystems (life below water), the Dratan ecosystem (life on land), peace, justice and strong institutions (peace, justice and strong institutions) and partnerships to achieve goals (partnerships for the goals).

The target set by the Sustainable Development Goals (SDGs) 2030 is MMR 70 per 100,000 live births. As many as 40% of maternal deaths in developing countries are indirectly related to anemia in pregnancy. The incidence of anemia in pregnant women in 2022 will range between 20%-89%. The prevalence of anemia in pregnant women in the world is 38.2% and this is an extreme health problem throughout the world with the highest prevalence in Africa at 44.6% followed by Asia with a prevalence of 39.3% (WHO, 2020)

The number of maternal deaths collected from family health program records at the Ministry of Health increases every year. In 2022, it shows that the prevalence has not reached the specified target, namely 305 per 100,000 live births (KH) from the target of 183 per 100,000 KH in 2024 (Ministry of Health of the Republic of Indonesia, 2022).

The Maternal Mortality Rate (MMR) in South Sumatra Province is 175, which means there are 175 female deaths during pregnancy, during childbirth or the postpartum period per 100,000 live births. In 2020 there were 111 cases, in 2021 there were 100 cases and in 2022 there were 93 cases (South Sumatra Provincial Health Office, 2021). Meanwhile, the number of maternal deaths in Empat Lawang Regency also appears to be decreasing, where in 2018 there were 39 cases, in 2019 there were 35 cases and in 2020 there were 32 cases. The causes of maternal deaths in Empat Lawang Regency in 2020 include several factors such as bleeding in 13 people, hypertension in pregnancy in 5 people, blood disorders in 3 people, metabolic disorders in 1 person and others not mentioned as many as 10 people (Empa Lawang District Health Office, 2022).

Factors that contribute to maternal death are generally direct causes and indirect causes. The direct causes of maternal death are factors related to complications of pregnancy, childbirth and postpartum such as bleeding 30.3%, hypertension 27.1%, infection 7.3%, prolonged labor and abortion 0% and others 40.8%. Indirect causes of maternal death include maternal deaths caused by non-obstetric causes. Examples include pregnant women who die from tuberculosis, heart disease, malaria, anemia and others. This disease is considered to aggravate pregnancy, thereby affecting the optimization of maternal and fetal health and increasing the risk of morbidity and death (Ministry of Health of the Republic of Indonesia, 2022).

Anemia is a medical condition in the form of a low number of red blood cells or hemoglobin in the body. Anemia in pregnancy is the condition of a mother with hemoglobin levels below 11 gr% in the first and third trimesters or levels <10.5 gr% in the second trimester. Based on Basic Health Research (Riskesdas) in 2018 there were 48.9% of pregnant women suffering from anemia in Indonesia (RI Ministry of Health, 2022).

Anemia in pregnancy can have a negative impact on both the health of the mother and her baby. Apart from its effect on death and bleeding, anemia during pregnancy will affect fetal growth, low birth weight (LBW) and increase perinatal mortality. Considering the various negative impacts that arise due to anemia in pregnant women, anemia should be prevented early through good pregnancy checks (Ministry of Health of the Republic of Indonesia, 2022).

The impact of anemia on the fetus includes abortion, intrauterine death, prematurity, low birth weight, congenital defects and easy infection. In mothers, pregnancy can result in abortion, premature birth, threat of cord decompensation and premature rupture of membranes. During childbirth it can result in histitis, retained placenta and post

partum bleeding due to uterine atony (Mufdlillah, 2020).

The main factors that cause anemia are currently unknown, while malnutrition, lack of knowledge and lack of attention to pregnant women predispose to iron deficiency anemia in pregnant women. However, in general, anemia during pregnancy is caused by a lack of nutrients and changes in body hormones which can affect the production of red blood cells in the body (Dartiwien & Nurhayati Y, 2019).

In an effort to prevent birth deaths, the government has since programmed health services for pregnant women, including a program to provide pregnant women with 90 iron supplements during pregnancy (Ministry of Health of the Republic of Indonesia, 2022).

Assessment of the implementation of health services for pregnant women can be done by looking at the coverage of K1, K4 and K6. K1 coverage is the number of pregnant women who have received antenatal care for the first time by health workers, compared to the target number of pregnant women in one work area within one year. K4 coverage is the number of pregnant women who have received standard antenatal care at least four times according to the recommended schedule in each trimester, compared to the target number of pregnant women in one work area within one year. Meanwhile, K6 coverage is the number of pregnant women who have received antenatal care according to the standard of at least six examinations and a minimum of two doctor's examinations according to the recommended schedule in each semester, compared to the target number of pregnant women in one work area within one year. This indicator shows access to health services for pregnant women and the level of compliance of pregnant women in having their pregnancy checked by health workers (Ministry of Health of the Republic of Indonesia, 2022).

The low number of visits from pregnant women shows that staff access to mothers still needs to be improved, while the minimum contact is 6 times, with details of 2 times in the first trimester, 1 time in the second trimester and 3 times in the third trimester. At least 2 times checked by a doctor during the 1st visit in the 1st trimester and at the 5th visit in the third trimester. K4 coverage below 70% (compared to the target number of pregnant women within a year) indicates inadequate quality of antenatal care. K4 has not been achieved, one of the reasons is because there is still a lack of understanding of maternal and child health (MCH) guidelines, especially pregnancy check-up visits, so

that pregnant women are still found who do not know the importance of regular pregnancy checks (Dewi et al., 2021).

The supporting factors for a group or person in maintaining health are the availability of health service facilities and the ease of achieving them, while the driving factors are the attitudes and behavior of community leaders and health workers. Of the three groups of factors that are closely related to low ANC visits among pregnant women, namely the redisposition factor which includes education level, socio-economics and level of knowledge. Knowledge is one of the factors that stimulates or stimulates the realization of health behavior. Good health behavior has an effect on reducing the incidence of anemia in pregnant women (Nilam, 2021).

Research with the title factors related to the incidence of anemia in pregnant women, especially in the work area of the Mpunda Community Health Center, Bima City. The results of Chi Square statistical analysis showed p value = 0.022 (p = 0.05), which means that there is a relationship between ANC visits and the incidence of anemia in pregnant women. It is said to be regular if a pregnant woman visits ANC at least once in the first trimester, once in the second trimester and twice in the third trimester. Irregular, if pregnant women do not fulfill the minimum visits in each trimester (Nurhaidah & Rostinah, 2021).

The results of the research entitled the relationship between the frequency of ANC visits and the incidence of anemia in pregnant women in the third trimester at the Bilalang Community Health Center, Kotamobagu City, the results showed that there was a relationship between the frequency of Antenatal Care and the incidence of anemia in pregnant women in the third trimester. If p = 0.013 > p = 0.05, it means that Ho is rejected, HI is accepted (Elfasari et al., 2020).

Data from the South Sumatra Provincial Health Service shows that the incidence of anemia in pregnant women continues to increase from year to year. In 2017 the prevalence of pregnant women with anemia was only (2.31%), in 2018 it increased again to (3.93%) and in 2019 the prevalence of pregnant women with anemia increased drastically to (19.09%). The highest percentage of anemic pregnant women is in Empat Lawang Regency at 36.6%, followed by Lahat at 18.3% and East Oku at 10.1%, while the lowest coverage of anemia is in Palembang City at 2.6%, followed by Regency Prabumulih was 2.9% and North Musi Rawas Regency was 3.7% (South Sumatra Provincial Health Office, 2021).

Based on data from the Empat Lawang District Health Service in 2022, of the number of pregnant women, the 3 health centers with the highest number of pregnant women with cases of anemia were the Pendopo Health Center with 46 cases from 53 mothers who underwent hemoglobin (Hb) checks from 307 pregnant women, followed by the Muara Health Center Pinang had 19 cases from 28 mothers who had hemoglobin (Hb) checked from 351 pregnant women and Lesung Batu Community Health Center had 13 cases from 89 mothers who had hemoglobin (Hb) checked from 288 pregnant women (Emma Lawang District Health Office, 2022).

Information obtained from the Pendopo Health Center shows that in 2021 there were 294 visits from pregnant women, in 2022 there were 307 people and during the period from January to June 2023 there were 191 people (Pendopo Health Center, 2022).

In the initial survey conducted by researchers on 22-24 May 2023, it was found that 6 out of 10 pregnant women admitted that they only came to the Community Health Center for a pregnancy check if they only had complaints such as fever, fever or cough, if there were no complaints they rarely came to the hospital. Public health center. In reality, efforts to ensure that mothers avoid the risk of anemia are often carried out by community health center officers, especially by midwives in the form of direct invitations, or during posyandu activities and at every MCH program outreach activity. Meanwhile, 4 other people admitted that they regularly and scheduledly visited the Puskesmas to check their pregnancy. From interviews with Puskesmas officers, it was found that many factors can influence pregnant women in making Antenatal Care visits, one of which is the mother's knowledge about Antenatal Care itself.

Based on the description above, researchers are interested in conducting research on "The relationship between regular Antenatal Care (ANC) visits and maternal anemia".

RESEARCH METHODS

This research was conducted from 12 February to 4 March 2024, at the Pendopo Health Center, Empat Lawang Regency. The design of this study was to use a cross sectional approach, the population was third trimester pregnant women who visited the Pendopo Community Health Center, Empat Lawang Regency from January to October 2023, totaling 191 pregnant women. The sample taken in this study used the Accidental Sampling technique as many as 58 people, and data collection was carried out using primary data from interviews using questionnaires. Data analysis used univariate and bivariate.

RESEARCH RESULTS
Respondent Characteristics

Respondents in this study consisted of pregnant women in the Pendopo Health Center Work Area, Empat Lawang Regency. More details of the distribution of respondents can be seen in the following table:

Table 1
Frequency Distribution of Characteristics of Pregnant Women

Characteristics	Frequency (n)	Persentase (%)
Age		
< 20 tahun	0	0
20-35 tahun	57	86,4
> 35 tahun	9	13,6
Paritas		
Primipara	39	59,1
Multipara	27	40,9
Grandemultipara	0	0
Education		
Base	25	37,9
Intermediate	26	39,4
Tall	15	22,7
Work		
Work	39	59,1
Not a Job	27	40,9

Source: Research Data for 2024

Based on table 1, it is known that of the 66 pregnant women aged 20-35 years, almost all of the respondents were 57 (86.4%). Of the 66 pregnant women, the majority of respondents 39 (59.1%) were primiparous. Of the 66 pregnant women, a small number of respondents, 26 (39.4%) had secondary education. Of the 66 pregnant women, most of the respondents, 39 (59.1%) were working.

Table 2
Frequency Distribution of Regular Antenatal Care (ANC) Visits for Pregnant Women

ANC Regularity	Frekuensi (n)	Persentase (%)
Reguler	39	59,1
Irreguler	27	40,9
Amount	66	100

Source: Research Data for 2024

Based on Table 2, it shows that the majority of respondents 39 (97.1%) had irregular ANC regularity.

Table 3
Frequency Distribution Frequency Distribution of Anemia in Pregnant Women

Anemic	Frekuensi (n)	Persentase (%)
Not Anemic	48	72,7
Anemic	18	27,3
Amount	66	100

Source: Research Data for 2024

Based on table 3. Shows that the majority of respondents are not anemic 48 (77.5%)

Table 4
Relationship between regularity of antenatal care (ANC) visits and anemia in pregnant women

ANC REgularity	Anemic		Not Anemic		Total		X^2	C	p value
	N	%	N	%	N	%			
Irreguler	6	9,1	33	50,0	39	59,1	6,793	0,305	0,020
Reguler	12	18,2	15	22,7	27	40,9			

Source: Research Data for 2024

Based on the research results, it is known that of the 66 respondents there were 39 (59.1%) pregnant women with irregular ANC visits, of which 6 (9.1%) had anemia and 33 (50.0%) did not have anemia. Of the 27 (40.9%) pregnant women with regular ANC visits, 12 (18.2%) were anemic and 15 (22.7%) were not anemic. The results of the statistical calculation of the chi square test showed that the continuity correction value

DISCUSSIONS

The results of the analysis of the relationship between regular Antenatal Care (ANC) visits and anemia in pregnant women, it was found that of the 66 respondents there were 39 (59.1%) pregnant women with irregular ANC visits, of whom 6 (9.1%) had anemia. In the group of mothers who did not regularly attend ANC visits, anemia occurred due to the number of children and relatively close birth spacing. Therefore, there is no other person who can look after their child during ANC, so pregnant women prefer to be absent from the ANC schedule, especially because they feel that their pregnancy is fine and they have no complaints.

Pregnant women are a group that is vulnerable to malnutrition, because there is an increase in nutritional needs to meet the needs of the mother and fetus in the womb. The nutritional problem that often occurs in pregnant women is anemia. Anemia in pregnant women is a condition where the hemoglobin level is below 1 gr% in the first and third trimesters, and below 10.5 gr% in the second trimester. Anemia in pregnant women is generally caused by increased plasma volume in the blood and iron deficiency during pregnancy (Nilam, 2021).

Pregnant women with anemia due to iron deficiency caused by a lack of consuming Fe tablets during pregnancy, difficulty in getting information due to lack of health promotion or the frequency of prenatal check-up visits is not carried out regularly so that the information given to pregnant women is late (Dewi et al., 2021).

The results of the statistical calculation of the chi square test showed that the continuity correction value

In accordance with research on the relationship between education and knowledge and

the incidence of anemia in pregnant women in the Karang Dapo Health Center Working Area, North Musi Rawas Regency, it is known that there is a relationship between education and the incidence of anemia in pregnant women (p value = 0.011) and there is a relationship between knowledge and the incidence of anemia in mothers pregnant (p value = 0.006) (Hervika O, 2019).

Similar research on the relationship between age and the incidence of anemia in pregnant women in the Metro City of Bandar Lampung, it is known that the p value = 0.001, which means there is a relationship between age and the incidence of anemia in pregnant women where the pregnant mother is under 20 years old and over 35 years old. 3,921 times to experience anemia compared to mothers aged 20-35 years (Nurianti et al., 2021).

In line with research entitled the relationship between the regularity of antenatal care (ANC) visits and compliance with the consumption of Fe tablets with the incidence of anemia in third trimester pregnant women in Maron District, Probolinggo, the results showed that there was a relationship between the regularity of antenatal care (ANC) visits (p=0.001; OR =4) and adherence to consuming Fe tablets (p=0.001; OR=3.46) with the incidence of anemia. Pregnant women who do not regularly attend ANC visits have a 4 times greater risk of experiencing anemia, while pregnant women who do not comply with taking Fe tablets have a 3.46 times greater risk of experiencing anemia (Nurmasari & Sumarmi, 2019).

Supported by research entitled factors that influence the incidence of anemia in pregnant women at the Kebon Jeruk District Health Center, it is known that the results of the chi square test analysis show that there is a significant relationship between parity, family income, knowledge of anemia, compliance with consuming Fe tablets and ANC visits with p value = 0.001 (< 0.05) (Marisi & Isti Istianah, 2021).

According to researchers, ANC during pregnancy really needs to be done regularly, because this can monitor the mother's health during pregnancy and can detect various complaints and risks that may occur later. Of course, in this case, the role of the husband and those closest to you is also needed as a moral encouragement so that the mother is enthusiastic about making efforts for her own health during pregnancy.

CONCLUSIONS

The conclusion of this study is that there is a relationship between the regularity of Antenatal Care (ANC) visits and anemia in pregnant women (p = 0.020).

SUGGESTIONS

For Community Health Centers, existing programs at Community Health Centers should be optimized to provide information through class activities for pregnant women about the regularity of ANC and the dangers or risks of anemia in pregnant women.

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EFFECTIVENESS OF STAGEN USE ON UTERINE INVOLUTION IN POSTPARTUM WOMEN

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ABSTRAK : EFEKTIVITAS PENGGUNAAN STGEN TERHADAP INVOLUSI UTERI PADA IBU NIFAS

Latar Belakang: Masa nifas merupakan masa krusial bagi petugas kesehatan untuk memantau kondisi ibu. Pada masa ini, organ reproduksi mengalami involusi dan kembali ke kondisi sebelum hamil. Namun jika proses involusi uterus gagal maka dapat terjadi subinvolusi uterus. Kegagalan ini dapat disebabkan oleh tertahannya fragmen plasenta, infeksi, atau pendarahan yang terus menerus. Beberapa faktor seperti usia, paritas, senam nifas, inisiasi menyusui dini (IMD), mobilisasi dini, nutrisi, dan penggunaan stagen dapat mempengaruhi dan mempercepat proses involusi. Stagen mengacu pada cara tradisional yang digunakan masyarakat Jawa untuk merawat penampilan fisik wanita pasca melahirkan. Penggunaan stagen selama 40 hari diyakini efektif mengencangkan perut dan membantu involusi rahim.

Tujuan: Penelitian ini dilakukan untuk menilai efektivitas penggunaan stagen terhadap involusi uterus pada ibu nifas di TPMB Ponirah Kota Metro Lampung Tahun 2023.

Metode: Penelitian dilakukan dengan menggunakan desain penelitian quasi eksperimen dengan pendekatan dua kelompok dan jumlah responden sebanyak 30 orang, yang terbagi menjadi 15 kelompok kontrol dan 15 kelompok intervensi. Analisis data meliputi analisis univariat, bivariat, dan multivariat.

Hasil: Hasil penelitian menunjukkan efektivitas penggunaan stagen terhadap involusi uterus pada ibu nifas di TPMB Ponirah Kota Metro tahun 2023 dengan nilai P value sebesar 0,014.

Kesimpulan: Terdapat pengaruh penggunaan stagen terhadap tinggi fundus uteri ibu nifas

Saran : Wanita pasca melahirkan disarankan menggunakan stagen untuk mempercepat proses pemulihan di masa nifas.

Kata Kunci: Stagen, Involusi Uterus, Masa Nifas, Wanita Nifas

ABSTRACT

Background: The postpartum period is a crucial time for health workers to monitor the mother's condition. During this time, the reproductive organs go through involution, returning to their pre-pregnancy state. However, if the uterine involution process fails, it can lead to uterine subinvolution. This failure can be caused by retained placental fragments, infection, or continued bleeding. Several factors, such as age, parity, postpartum exercises, early breastfeeding initiation (IMD), early mobilization, nutrition, and the use of stagen can influence and accelerate the process of involution. Stagen refers to traditional methods used by the Javanese community to care for postpartum women' physical appearance. The use of stagen for 40 days is believed to be effective in firming the abdomen and aiding in uterine involution.

Aim: This study was conducted to assess the effectiveness of stagen use on uterine involution in postpartum women at TPMB Ponirah Metro City, Lampung in 2023.

Methods: The research was conducted using a quasi-experimental research design with a two-group approach and a total of 30 respondents, split into 15 control group and 15 intervention group. Data analysis involved univariate, bivariate, and multivariate analysis.

Results: The results showed the effectiveness of using stagen for uterine involution in postpartum women at TPMB Ponirah Metro City in 2023, with a P value of 0.014.

Conclusion: There is an effect of stagen use on the uterine fundal height of postpartum women

Suggestion: Postpartum women are advised to use stagen to accelerate the recovery process during the postpartum period.

Keywords: Stagen, Uterine involution, Postpartum period, Postpartum women

INTRODUCTION

The postpartum period is a crucial time for health workers to monitor the mother's health. During this time, the reproductive organs undergo involution, returning to their pre-pregnancy state in terms of shape and position. Uterine involution refers to the process of the uterus shrinking and returning to its original size of about 60 grams after

childbirth. This process begins with the contraction of the smooth muscles of the uterus after the placenta is delivered. Various factors, such as breastfeeding, early mobility, nutritional status, age, and parity, can affect the involution process. Uterine involution occurs in all postpartum women, and it is a natural part of the body's recovery after pregnancy. When the uterus fails to undergo proper involution, it can lead to a condition called uterine sub-involution.

The leading cause of the high maternal mortality rate in Indonesia is postpartum hemorrhage, which ranks highest. When the uterus in postpartum women fails to involute properly, it can lead to uterine subinvolution, resulting in continuous bleeding that can even lead to death. Uterine subinvolution is the delayed return of the uterus to its normal state, caused by endometrial infection, retained placental tissue, blood clots, or uterine myoma.

The cause of subinvolution can be due to retained placental fragments, infection, and continued bleeding. Several factors influence the acceleration of the involution process, such as age, parity, postpartum exercises, early breastfeeding initiation (IMD), early mobilization, nutrition, and the use of stagen. The use of stagen involves traditional practices within the Javanese community to care for the appearance of postpartum women. It is believed that using stagen for 40 days effectively tightens the abdomen and aids uterine involution. The purpose of this study was to assess the effectiveness of

stagen use on uterine involution in postpartum women at TPMB Ponirah Metro City, Lampung in 2023.

RESEARCH METHODS

The research was conducted at TPMB Ponirah in Metro City, from August to November 2023. The study included 30 respondents, divided into two groups of 15 respondents each: the intervention group and the control group. The respondents were selected using accidental sampling technique. The study included postpartum women who delivered normally at TPMB Ponirah in Metro City, had a good general condition, and experienced no complications during the postpartum period. Stagen installation was performed from day one to day seven of the postpartum period. After collecting the data, it will be analyzed using computer devices, including univariate, bivariate, and multivariate analysis.

RESEARCH RESULTS
Univariate analysis

Based on the findings in table 1, it can be concluded that in the intervention group, 80.0% of the respondents had multiparous parity, 80.0% of them underwent mobilization, and 73.3% had good nutritional intake. In the control group, 73.3% of the respondents had multiparous parity, 86.7% underwent mobilization, and 80.0% had good nutritional intake.

Table 1
Distribution of postpartum women' frequencies based on parity, early mobilization, and nutrition at TPMB Ponirah, Metro City, Lampung in 2023

Characteristics	Intervention Group		Control Group	
	Frequency (n=15)	Percentage (%)	Frequency (n=15)	Percentage (%)
Parity				
Multiparous	12	80.0	11	73.3
Primiparous	3	20.0	4	26.7
Mobilization				
Poor	3	20.0	2	13.3
Good	12	80.0	13	86.7
Nutritional Intake				
Poor	4	26.7	3	20.0
Good	11	73.3	12	80.0

Table 2
The average uterine involution of postpartum women who were and were not intervened using Stagen in TPMB Ponirah Metro City, Lampung in 2023

Uterine Fundal Height	Intervention Group		Control Group	
	Day 3	Day 7	Day 3	Day 7
Mean	9.6	4.73	10.40	5.40
Min	9	4	9	4
Max	11	6	11	7
Mean difference	Day 3	0.8	Day 7	0.67

According to table 2 and the analysis, the mean of uterine fundal height in the Stagen intervention group was 9.6 cm on day 3 and 4.73 cm on day 7. In the control group (without Stagen intervention), the mean height was 10.04 cm on day 3 and 5.40 cm on day 7.

Bivariate Analysis

The results from table 3 indicate that the statistical test yielded a p-value of 0.07. This suggests that there is no relationship between parity and uterine involution, with an odds ratio (OR) value of 4.8. This means that parity has a 4.8-fold effect on the occurrence of uterine involution between multiparous and primiparous women.

Table 3
The correlation between parity and uterine involution in postpartum women at TPMB Ponirah Metro City, Lampung in 2023

Variable	Uterine Involution				P-value	OR (95% CI)
	Normal		Fast			
	N	%	N	%		
Parity						
Multiparous	12	80.0	11	73.3	0.07	4.8
Primiparous	3	20.0	4	26.7		(0.797-28.89)

Table 4
The correlation between mobilization and uterine involution in postpartum women at TPMB Ponirah Metro City, Lampung in 2023

Variable	Uterine Involution				P-value	OR (95% CI)
	Normal		Fast			
	N	%	N	%		
Mobilization						
Poor	3	20.0	2	13.3	0.01	0.2
Good	12	80.0	13	86.7		(0.028-1.573)

Based on Table 4 above, the statistical test resulted in a p-value of 0.01, indicating a relationship between mobilization and uterine involution with an odds ratio (OR) of 0.2. This means that women with good mobilization have a 0.2 times faster uterine involution compared to women with poor mobilization.

Based on Table 5 above, the statistical test results indicate a p-value of 0.03, suggesting that there is no relationship between nutrition and uterine involution. The odds ratio (OR) value is 3.2, which means that women with good nutrition experience uterine involution 3.2 times faster than women with poor nutrition.

Table 5
The correlation between nutrition and uterine involution in postpartum women at TPMB Ponirah Metro City, Lampung in 2023

Variable	Uterine Involution				P-value	OR (95% CI)
	Normal		Fast			
	N	%	N	%		
Nutrition						3,2
Poor	4	26.7	3	4	0.03	(0.326-31.420)
Good	11	73.3	12	11		

Table 6
Effect of Stagen Use on Uterine Involution of Postpartum Women in TPMB Ponirah, Metro City, Lampung in 2023

Uterine Fundal Height	Mean	p	p
Intervention Group	6.68	0.000	
Control Group	11.63	0.000	0.014

As per the findings in table 6, the normality test was conducted, revealing that the data was not normally distributed ($p<0.05$) in both the intervention group (p=0.000) and the control group (p=0.000). Consequently, the Mann-Whitney Test was performed to assess the impact of uterine involution on postpartum women who received the intervention of using bengkung (stagen) and those who did not, on days 3 and 7. The obtained p-value was 0.014, indicating that the use of stagen has a significant effect on uterine involution in postpartum women.

Multivariate Analysis

Multivariate analysis was conducted to identify the most influential variables. We selected variables for inclusion in the multivariate analysis based on their bivariate analysis p-values of <0.25. The variables included in the multivariate analysis were parity, mobilization, and nutrition. The results of the multivariate analysis using the ANCOVA test can be found in table 7 below:

Table 7
Effect of Parity, Mobilization, Nutrition, and Use of Stagen on Uterine Involution of Postpartum Women in TPMB Ponirah Metro City, Lampung in 2023

Variable	Type II Sum of Squares	R Square
Parity	0.027	
Mobilization	0.843	
Nutritional Intake	0.254	0.479
Stagen Use	0.028	
Corrected Model	0.142	

After stage I, it was determined that mobilization and nutrition were not linked to uterine involution. However, parturition and the use of were found to have a relationship with uterine involution, with an R-squared value of 0.479%. Subsequently, the analysis was revisited and the results can be seen in Table 8 as follows:

In Table 8, the multivariate analysis results indicate that the most influential factor on the uterine involution of postpartum women is the use of bengkung/stagen, with a p-value of 0.018. This means that the use of bengkung/stagen, in combination with parity, affects uterine involution by 0.285%.

Table 8
Effect of Parity and Stagen Use on Uterine Involution of Postpartum Women at TPMB Ponirah, Metro City, Lampung in 2023

Variable	Type II Sum of Squares	R Square
Parity	0.043	
Stagen Use	0.018	0.285
Corrected Model	0.031	

DISCUSSIONS

Uterine Involution of Postpartum Women at TPMB Ponirah, Metro City in 2023

In this study, the intervention group showed that the uterine fundal height on day 3 was 9.6 cm and on day 7 was 4.73 cm on average, with a minimum of 4 cm and a maximum of 7 cm. In contrast, the control group (without intervention) had an average uterine fundal height on day 3 of 10.40 cm and on day 7 of 5.40 cm, with a minimum of 4 cm and a maximum of 7 cm. These results suggest that using stagen for 7 days can speed up uterine involution compared to postpartum women who do not use stagen. It's important to note that not everyone in the intervention group experienced faster involution than normal, which may be due to other factors such as parity, nutritional intake, and mobilization actions.

The findings of this study are supported by research conducted by Aini in 2019, titled "Effectiveness of the Combination of Bengkung (Stagen) with Oxytocin Massage in Reducing the Uterine Fundal Height of Postpartum Women in Blora Primary Health Care." The research reveals that the average decrease in uterine fundal height in the group receiving the combination of bengkung (stagen) and oxytocin massage before the intervention is 10.74 with a standard deviation of 0.562. After treatment, the average decrease is 1.05 with a standard deviation of 1.026. The difference between the pretest and posttest yields an average of 9.58 with a standard deviation of 1.170. This demonstrates that the mean value before treatment is higher than the mean value after treatment, indicating a significant change resulting from the combination of bengkung (stagen) with oxytocin massage.

During the postpartum period, which lasts approximately 6 weeks, certain actions can help speed up the involution process for the mother. Uterine involution involves the reorganization and shedding of the decidua/endometrium and the placental attachment site, leading to a decrease in size and weight of the uterus, as well as changes in its location and in the color and amount of lochia. If the uterus fails to return to a non-pregnant state, it may cause subinvolution. Retained placental fragments, infection, and late postpartum hemorrhage are the most common causes of uterine subinvolution (Maritalia, 2014).

One of the methods to speed up the process of uterine involution is the use of stagen. This practice is deeply rooted in the community and offers benefits during the recovery process. Postpartum women often choose to use stagen due to cultural influences and the belief that it can help them slim down. They also report feeling more comfortable, balanced, and confident when using stagen (Rahayu, 2018).

Effectiveness of Stagen Use on the Uterine Involution Process of Postpartum Women in TPMB Ponirah Metro City in 2023

The study's results show that there is a significant difference in the value of uterine fundal height between the group that received the stagen intervention and the group that did not on days 3 and 7 (p-value = 0.014). This suggests that there is an impact of using stagen on the uterine fundal height of postpartum women.

The findings of this study do not align with the research conducted by Mayasari in 2017. Mayasari's study, titled "The Difference in the Use of Stagen with a Decrease in the Uterine Fundal Height in Postpartum Women at the Nur Hikmah Gubug Clinic, Grobogan Regency," indicated that the average of uterine fundal height was 6.45 cm for the group using tight stagen and 5.61 cm for the group using loose stagen. The results of the Independent T-test revealed a significant difference in the reduction of the fundus uteri height between the tight and loose stagen groups, with a p-value of 0.006.

The study results are consistent with Aini's research from 2019, which focused on the effectiveness of combining the use of bengkung (stagen) with oxytocin massage to reduce uterine fundal height in postpartum women in the Blora Primary Health Care. The findings indicate that the combination of bengkung (stagen) and oxytocin massage is more effective in decreasing the uterine

fundal height in postpartum women (p-value = 0.006).

Traditionally, stagen is known as a long cloth commonly used by mothers or grandmothers in rural areas. However, with technological and cultural advancements, the use of stagen has evolved. It is now used not only as a traditional clothing accessory but also in healthcare. Traditionally, the use of bengkung (stagen) can help women slim their stomach after giving birth by applying pressure to the abdominal cavity, aiding the contraction of the uterus back to its original shape (Ernawati, 2013).

Some of the benefits of using a support garment known as a postpartum girdle, or stagen, include promoting uterine involution, restoring abdominal tone, reducing pain, and providing back support for postpartum women. This helps improve posture more quickly. The abdominal region experiences pressure after childbirth, and the stagen helps support it, along with the lumbopelvic region, by applying gentle pressure on the transversus abdominis muscle, which in turn helps the abdominal muscles function more effectively. Additionally, incorporating regular physical exercise along with wearing the stagen can reduce the occurrence of lower back pain in postpartum women (Motolla, 2012).

Based on the results of this study and several previous studies, it can be concluded that using a postpartum girdle, known as a stagen, can be an alternative method that helps with the process of uterine involution. This is because the use of a stagen can help the abdominal muscles work more effectively by applying pressure on the abdomen, which in turn supports the abdomen and lumbopelvic region by engaging the transversus abdominis muscle.

Effect of Factors Affecting Uterine Involution at TPMB Ponirah, Metro City in 2023

The findings of this study suggest that both parity and the use of stagen have an impact on uterine involution, with a 0.285% influence. The results indicate that the combined effect of these two variables accelerates uterine involution. It's important to note that there may be other factors influencing uterine involution in pregnant women, such as maternal age. In this study, the respondents were women in the age group of 20-35 years.

The process of uterine involution is significantly influenced by the mother's age at childbirth. The ideal age for a good involution process is between 20 and 30 years. This is because the uterine muscles have better elasticity in women within this age range. Women who are 35 years old or older tend to have reduced muscle elasticity. Furthermore, mobilization promotes improved circulation, deep breathing, and stimulates normal gastrointestinal function. Early mobilization leads to good uterine contractions, resulting in a firm uterine fundus, which helps avoid the risk of abnormal bleeding since contractions narrow the open blood vessels (Elisabeth Siwi, 2017).

During the postpartum period an additional 500 kcal of energy is needed per day, this additional energy is needed to support the uterine contraction process in the involution process towards normal. Lack of energy in postpartum women can cause the contraction process to not be maximized, so that uterine involution continues to run slowly (Elisabeth Siwi, 2017).

Stagen is a culture of wearing support cloth that is widely used by postpartum women to get compression or pressure on the abdomen so that it helps support the abdomen and lumbopelvic region by putting a little pressure on the tranversus abdominis muscle (Benjamin et al, 2013).

The benefits of using stagen include being able to help accelerate uterine involution, restore abdominal tone, reduce back pain and support the back of postpartum women so that it helps the formation of posture to be formed more quickly (Amalia, 2014).

CONCLUSIONS

There is an effect of stagen use on the uterine fundal height of postpartum women.

SUGGESTION

Postpartum women are advised to use stagen to accelerate the recovery process during the postpartum period.

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Mitayakuna Stianto, Siti Fatimah, Alfira Fitriana

FACTORS ASSOCIATED WITH DIAPER RASH IN INFANTS AGED 0-12 MONTHS

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ABSTRAK : AKTOR-FAKTOR YANG BERHUBUNGAN DENGAN RUAM POMPA PADA BAYI USIA 0-12 BULAN

Latar Belakang : Kulit bayi relatif tipis sehingga lebih rentan terhadap infeksi, peradangan, dan alergi. Ruam popok merupakan masalah kulit yang umum terjadi pada bayi. Data epidemiologi menunjukkan bahwa ruam popok atau diaper rash terjadi di 65% populasi anak-anak. Kejadian ruam popok dapat dimulai sejak periode neonatus, sejak bayi mulai menggunakan popok (Putri & Ludiana, 2021). Namun, insidensi lebih sering ditemukan pada bayi yang lebih tua, sebab frekuensi penggantian popok lebih jarang dibandingkan neonatus.

Tujuan: Untuk mengetahui faktor-faktor yang berhubungan dengan ruam popok pada bayi.

Metode : Penelitian Strategi dalam mencari jurnal yang digunakan dalam literature review, pertanyaan yang digunakan untuk melakukan review jurnal yang disesuaikan dengan PICOT dan istilah pencarian jurnal melalui MESH, batasan mengambil jurnal dan hal lainnya. Jurnal yang digunakan dalam literature review didapatkan melalui database google scholar. Populasi : Bayi yang mengalami ruam popok. Sampling : Sebagian dari bayi yang mengalami ruam popok.

Hasil : Berdasarkan 10 penelitian terdapat 4 jurnal penelitian tentang ruam popok terjadi karena kurangnya pengetahuan ibu, terdapat 4 jurnal penelitian tentang ruam popok dikarenakan personal hygiene, terdapat 1 jurnal penelitian tentang ruam popok karena lama pemakaian popok sekali pakai dan terdapat 1 jurnal penelitian tentang ruam popok karena penggunaan bedak tabur pada area genetal.

Kesimpulan : dengan penatalaksanaan memberikan edukasi kepada ibu untuk menggunakan popok kain yang memiliki daya serap tinggi dan mengganti sesering mungkin. Masalah teratasi setelah diberikan perawatan selama 5 hari dengan intervensi yang diberikan, kemudian dilakukan pendokumentasian dengan menggunakan manajemen SOAP.

Saran : Dalam kasus ruam popok akan sembuh dengan penanganan penggunaan popok tidak lebih dari 4 jam, setelah BAK/BAB segera dibersihkan dengan air atau kapas DTT, menjaga kelembaban area genetal.

Kata kunci : bayi, personal hygiene, ruam popok.

ABSTRACT

Background.Babies' skin is relatively thin, making it more susceptible to infection, inflammation and allergies. Diaper rash is a common skin problem in infants. Epidemiological data shows that diaper rash occurs in 65% of the paediatric population. The incidence of diaper rash can start as early as the neonatal period, from the time an infant starts wearing nappies. However, the incidence is more common in older infants, as the frequency of nappy changes is less frequent compared to neonates.

Objective: To determine the factors associated with diaper rash in infants.

Methods: Research strategy in finding journals used in the literature review, questions used to review journals tailored to PICOT and journal search terms through MESH, journal retrieval limitations and other matters. Journals used in the literature review were obtained through the google scholar database. Population: Infants with diaper rash. Sampling: Some of the babies who have diaper rash.

Results: Based on 10 studies, there are 4 research journals on diaper rash due to lack of maternal knowledge, there are 4 research journals on diaper rash due to personal hygiene, there is 1 research journal on diaper rash due to long use of disposable diapers and there is 1 research journal on diaper rash due to the use of powder on the genetal area.

Conclusion: with the management of providing education to the mother to use cloth diapers that have high absorption and change as often as possible. The problem was resolved after being given treatment for 5 days with the interventions provided, then documentation was carried out using SOAP managemen

Suggestion: In the case of diaper rash, it will heal by handling the use of diapers for no more than 4 hours, after BAK / BAB immediately cleaned with water or DTT cotton, keeping the genetal area moist.

Keywords:baby, diaper rash, personal hygiene.

INTRODUCTION

In recent years, the use of disposable diapers has been very common in Indonesia. Most mothers prefer disposable diapers compared to using cloth diapers, because of the practicality that makes mothers feel they don't need to change wet diapers frequently due to defecation, besides making the house cleaner not exposed to baby urine and babies who cannot use the toilet yet.(Ullya et al., 2018)

If the baby uses diapers, the baby will have the potential for diaper rash in the buttocks and thigh folds. Diaper rash is a common problem in infants, especially newborns (Anbartsani et al., 2021). Diaper-rash usually occurs in infants with reddened skin on the buttocks and pubic area, due to irritated skin, especially in newborns who are sensitive to irritants. Diaper rash is an irritation of the baby's skin on the bum area (Asyaul Wasiah et al., 2021). This can happen if the nappy is not changed immediately, the nappy is too rough and does not absorb sweat and is constantly in direct contact with the baby's skin, because in a humid and warm area it certainly triggers the growth of bacteria, plus abrasions due to friction which reduces the effectiveness of the skin barrier, causing diaper rash (Nurhayati et al., 2023). The incidence of diaper rash varies from country to country, depending on parents' knowledge of how to use nappies (Feviya Nurjannah et al., 2023).

According to data released by the World Health Organisation, the prevalence of diaper rash in infants is very high, with 25% of babies born in the world suffering from diaper rash (Juairiah. & Widiari, 2023). The highest number is at the age of 6-12 months (WHO, 2018). According to IDAI data in Indonesia in 2022 around 7-35% of infants aged 6-12 months experience nappy rash as many as 1.9-10 million babies. Based on the results of research conducted by Dini Royda in Ngelele Village, Jombang Regency in 2017, the incidence of nappy rash from 32 respondents who experienced nappy rash was 11 babies (34.4%), most of the respondents who did not experience nappy rash were 21 babies (65.6%). From the results of research conducted at PMB Zulfiah Surabaya in June to July 2018, 40 babies were examined, 25 babies (62.5%) had nappy rash and 15 babies (37.5%) did not have nappy rash.

efforts to prevent nappy rash are actually very simple including changing the child's nappy frequently after defecation, keeping the skin of the baby's nappy area moist, and remembering that parents need to be wise in choosing good staples for their children (Arum Meiranny et al., 2021).

choose staples made from soft, high-fibre materials, or use other chemical-free nappies that are considered safer for your baby's skin. cloth nappies are a solution to prevent nappy rash (Anggraini, 2019). The use of baby powder can cover the urinary tract and will accumulate in the pubic area so that it becomes a place for germs to grow. when changing disposable nappies use a protective cream or ointment containing zinx ixide or petrolatum to form a protective layer on the baby's skin (Susanti, E. 2020).

Based on the above background, the authors are interested in further examining the literature review wearing factors associated with fertiliser space in infants aged 0-12 months.

RESEARCH METHODS

the journal search strategy used in the literature review, journal review questions are adjusted to journal search terms through PICOT and MESH, journal publication restrictions. the journals used for the literature search were obtained from the Google scholar data base. the author opened the website www. Google scholar.com. the researcher wrote the keywords according to MESH (Medical Subject Heading), namely "Long use of diapers", "personal hygiene" and selected full text. 723 findings appeared, then narrowed down with academic journals and found 10 findings and then sorted from the latest.

RESEARCH RESULTS

Personal hygiene is a person's effort to maintain cleanliness to prevent disease. personal hygiene is also the first step towards a healthier life.

According to research conducted by Rohemah and Nova P. (2018), the results of cross tabulation of genital hygiene with diaperush in toddlers aged 12-36 months can be seen that almost half of the 22 toddlers who experienced diaperush with insufficient genital hygiene were 9 toddlers (40.9%) based on Chi Square analysis, the P value was 0.000 with a calculated significant value of 0.000 <0.05, so it was concluded that there was a relationship between genital hygiene. Diaper rash is not a fatal symptom, but it is important to change diapers after wetting the bed, keep the skin dry using special soap, loosen diapers, and ensure that mothers regularly remove baby diapers. by changing and washing your baby's diapers. dry the diaper at the bottom point before putting on new clothes and diapers.

According to research by Miftahul Khairoh and Arkha Roosyariah (2022), it shows that of the

23 babies who experienced nappy rash and were given sow powder on the genital area, 18 (85%) babies, most of whom experienced severe nappy rash. P = 0.000 <0.05, which means that there is a relationship between the use of talcum powder in the genital area of infants aged 0-9 months on the incidence of diaper rash. this is in accordance with the theory put forward by Cahyu (2015). That the use of talcum powder can result in diaper space. the powder mixes with sweat in the folds of the thighs to cause the growth of bacteria so as to worsen the condition of the diaper. giving talcum powder is one of the habits that parents often do which is considered a hereditary tradition after bathing their babies and putting talcum powder on the baby's body (Astuti et al., 2023).

According to Siti Aisyah's research in 2015 (2015) suggests that the length of use of babies who often use diapers is mostly 17 (56.67%). P value a = 0.05 which concluded that there is a relationship between the use of diapers and the incidence of diaper rash in infants aged 6-12 months. this is in accordance with the theory put forward by Apriza (2017) that the use of diapers is not more than 2-3 hours. so that if disposable diapers are used for more than 4 hours it can make the baby fussy and uncomfortable doing activities (Sandra & Morika, 2019).

RESEARCH STEPS OR RESEARCH METHODS USED

Hadminah and Neneng Julianti (2022), Ullya et al (2021), Lindha Sri K, et al (2021), Siti Aisyah (2015), Siti Nurbaeti (2017), Miftakhul K and Arkha R (2022), Eka Feviya Nurjannah et al (2023), Devi Sri Intan and Qurratul A'yyun (2020), used the same method with the cross sectional method. Rohemah and Nova purmahardini (2018) used the restropection method and Luzain indra et al, (2021) used the descriptive correlational method.

RESERCH RESULT

Author	Title	Journal name	Method (design, population, sample, variables, instruments, analyses)	Result
Hadminah, Neneng Julianti	Nappy rash in infants in hamlet 2 of Tridaya sakti village, tambun Selatan subdistrict, Bekasi district in 2022	suherman medika university journal, 12-04-2023	DESIGN: cross-sectional POPULATION: mothers who have babies aged 0-12 months hamlet 2 Tridayasakti village SAMPLE: 70 mothers who have babies VARIABLES: maternal knowledge, environment, parental role, and education INSTRUMENT: questionnaire ANALYSIS: Chi square	The results showed that the variables associated with nappy rash in infants in hamlet 2 of Tridaya sakti village, South tambun sub-district were maternal knowledge, environment (P value 0.029) and parental role (P value 0.004), while the unrelated factor was education (P value 0.719) which showed that most respondents (70%) experienced nappy rash, and there was an association between maternal knowledge, maternal environment and parental role with nappy rash, while maternal education had no association with the occurrence of nappy rash (Susanti, 2020).
Rohemalh, Noval Purmalhalrdini	the relationship between genital hygiene and diaper rush in	Journal of nursing and midwifery ISSN: 2621-	DESIGN: retrospection POPULATION: 33 toddlers SAMPLE: 33 toddlers	The results of the study of the relationship between genital hygiene with diaper Rush in toddlers aged 12-36

toddlers aged 12-36 months BPS suswati, Sst M.Mkes Pameksaan 2018		0231 (Online) ISSN: 2580-1929 (Print)	VARIABLE: infants aged 12-36 months INSTRUMENT: questionnaire ANALYSIS: Chi square	months, the number of toddlers in 2017 the number of toddlers in January to June as many as 20 toddlers who were exposed to him continued as many as 4 (20%) toddlers, and the number of toddlers in July-December as many as 26 toddlers who were exposed to him aged as many as 7 (35%) toddlers based on analysis Square P value 0.000 with a significant value calculated 0.000 <0.05, it is concluded that there is a relationship between genital hygiene with diaper Rush in toddlers aged 12-36 months.
Ullyal, Widyalwalti, Desy Alrmallinal	The relationship between maternal knowledge and behaviour in the use of disposable diapers in toddlers with the incidence of diaper rash.	Journal of Diponegoro medicine Volume 7, Number 2, May 2018 ISSN Online: 2540-8844	DESIGN: cross sectional POPULATION: mothers of children aged 3 months-36 months who use disposable nappies in meteseh village. SAMPLE: consecutive sampling number 35 VARIABLE: maternal knowledge in disposible diapers prevelence of nappy rash. INSTRUMENT: questionnaire ANALYSIS: Chi square	The results of the study with data analysis showed the P value of maternal knowledge regarding the use of diapers with diaper rash of 0.031 and prevalance ratio (PR) 0.220. Meanwhile, the P value of maternal behaviour regarding the use of diapers with diaper rash was 0.048 and prevalance ratio (PR) 0.266. the P value for the relationship between maternal knowledge and maternal behaviour related to the use of disposable diapers on the baby was 0.007.
Lindhal Sri K, Alrsy Widyaltrialstu ti	The relationship between perianal care and the incidence of diaper dermatitis in infants in the working area of the mrican health centre, Kediri city in 2021.	Surgery. 8 edition vol 2. Jalkalrtal : EGC	DESIGN: cross sectional POPULATION: 33 mothers with babies who use diapers SAMPLE: 33 respondents VARIABLES: 1. perianal care done by mothers to their babies who use disposable nappies. 2. prevalence of nappy dermatitis in infants. INSTRUMENT: questionnaire	based on the results of the study showed that 79% or 26 babies experienced nappy dermatitis. P valiu > a (0.05) which means there is a relationship between perianal care and the incidence of nappy dermatitis in infants in the work area.

			ANALYSIS: contingency coefficient test.	
Luzalin Indral Rochmalwalti, Ns. Yunital Wulalndalri, M. Kep, Ns. Dialn Nur Wulalnningrum, M.Kep	The relationship between maternal efficacy and the implementation of personal hygiene to reduce nappy rash in infants aged 0-12 months.	nursing study programme undergraduate programme faculty of health sciences Kusuma Husada university Surakarta 2021	DESIGN: descriptive correlational POPULATION: mothers who have babies aged 0-12 months SAMPLE: 95 respondents VARIABLE: maternal efficacy with the implementation of personal hygiene by reducing nappy rash in infants aged 0-12 months INSTRUMENT: quota sampling ANALYSIS: spearman rank	The results showed that respondents who had high efficacy were 52 respondents (54.7%) and mothers with low efficacy were 43 respondents (43%). respondents had a good level of personal hygiene as many as 54 respondents (56.8%) and respondents who had an unfavourable level of personal hygiene were 41 respondents (43.2%). the results of the rank correlation test, namely the P-value of 0.000 < a (0.05) means that there is a relationship between maternal efficacy and the implementation of personal hygiene to reduce nappy rash in babies aged 0-12 months.
Siti Alisyalh	The relationship between diaper use and the incidence of nappy rash in infants aged 6-12 months in 2015.	Journal Midpro Frequency Two issues per yealr (Juny alnd December) DOI prefix 10.30736 Print ISSN: 2086-2792 Online ISSN: 2684-6764	DESIGN: cross sectional POPULATION: infants aged 6 to 12 months in Putat kumpul polindes, Turi, Lamongan SAMPLE: 30 respondents VARIABLE: relationship between diaper use and nappy rash INSTRUMENT: questionnaire and observation sheet ANALYSIS: contingency coefficient test.	The results of the study of the relationship between diaper use with the incidence of diaper rash in infants aged 6-12 months in 2015 the frequency of use of infants who often use diapers is mostly 17 (56.67%). P value a = 0.05 which concluded that there is a relationship between the use of diapers with the incidence of nappy rash in infants aged 6-12 months.
Siti Nurbaleti	The relationship between maternal knowledge and actions in perianal care with the incidence of diaper rash in infants aged 0-12 months at RSUD Dr. H.	journal of medical and health sciences, volume 4, number 1, January 2017 26.	DESIGN: cross sectional POPULATION: mothers of infants aged 0-12 months at RSUD Dr H. Moeloek Bandar Lampung SAMPLE: 78 respondents VARIABLES: 1. mothers' knowledge in perianal care with the	the results of the study obtained that of the 27 people who had poor knowledge there were 22 people (28.2%) who had diaper rash. while of the 51 mothers who had good knowledge there were 11 people (14.1%) who had diaper rash. based on the results of statistical tests obtained a value of P =

	Abdul Moeloek Bandar Lampung.		incidence of nappy rash in infants aged 0-12 months. 2. mothers' actions in perianal care with the incidence of nappy rash in infants aged 0-12 months. INSTRUMENT: questionnaire ANALYSIS: Chi Square.	0.000 (a <0.05) which means there is a significant relationship between knowledge and maternal actions in perianal care with the incidence of diaper rash in infants aged 0-12 months at Dr. H Abdul Moeloek Hospital Bandar Lampung.
Miftalhul Khaliroh, Alrkhal Roosyalrial	The relationship between the use of powder on the genital area of infants aged 0-9 months and the incidence of diaper rash at PMB Fadilah, Bulukagung village, Madura.	Midwifery journal. Vol. 12 No. 2 ISSN 2580-4774 (Online) September 2022 Hall 121-129 ISSN 2088-2505 (Print)	DESIGN: cross sectional POPULATION: infants aged 0-9 months at PMB Fadilah bulukagung village Madura SAMPLE: 23 respondents VARIABLE: the use of loose powder on the genital area of infants aged 0-9 months against the incidence of diaper rash INSTRUMENT: purposive sampling ANALYSIS: Chi square	The results showed that of the 23 babies who experienced diaper rash and were given loose powder in the genital area, 18 (85%) babies, most of whom experienced severe diaper rash. P = 0.000 <0.05 which means there is a relationship between the use of powder in the genital area of infants aged 0-9 months on the incidence of diaper rash at PMB Fadilah, Bulukagung village, Madura.
Ekal Feviyal Nurjalnnalh, Desi Salriyalni, Dwi Alnital Alprialstuti, Zulhijriyalni	the relationship between infant personal hygiene and the incidence of diaper rush in infants 0-12 months in lubuk Banjar village	midwifery educational research journal volume 01 No 01, pp.31-35, April 2023 (midwifery educational research journal) high school of health science Bakti Utama Pati	DESIGN: cross sectional POPULATION: infants aged 0-12 months in lubuk Banjar village SAMPLE: 65 respondents VARIABLES: 1. frequency of diaper rash 2. frequency of personal hygiene in infants aged 0-12 months 3. relationship between personal hygiene of infants with the incidence of diaper rash in infants aged 0-12 months INSTRUMENT: accidental sampling ANALYSIS: Chi square	The results of the relationship test between the two variables using the Chi square statistical test obtained results based on the fisher Exact test obtained X2 count> X2 table (32.96> 3.841) which means Ho is rejected and Ha is accepted. P value = 0.001 which means there is a significant relationship between personal hygiene and the incidence of diaperas in infants aged 0-12 months in Lubuk Banjar village.
Devi Sri Intaln, Qurraltul Al'yun	The relationship between mothers' knowledge of	Journal: Salkti Bidaldalri/2020/ Vol.3 No.2 Issn:2580-1821	DESIGN: cross SECTIONAL : infants aged 0-6 months in grujugan village,	The results of the study showed that mothers with sufficient knowledge were 22 respondents (50%), and

infant personal hygiene and the incidence of diaper rash in infants aged 0-6 months in grujugan village, larangan sub-district, Pamekasan district.	larangan sub-district Pamekasan district SAMPLE: 44 respondents VARIABLE: relationship between knowledge and incidence of diaper rash in infants aged 0-6 months INSTRUMENT: questionnaire ANALYSIS: contingency coefficient	mothers with good knowledge were half (4.54%) as many as 8 respondents. The data were then analysed using the coefisien contingensy statistical test using the SPSS 18 for Windows program to obtain a value of a = 0.05, df = 2, X2 count = 14.459a X2 table = 0.5991. because, X2 count> X2 table, it can be concluded that H0 is rejected with H1 accepted, which means that there is a relationship between maternal knowledge about personal hygiene of infants with the incidence of diaper Rush.

CONCLUSION

Based on midwifery care for baby A aged 12 days with nappy rash, the subjective data obtained is that the mother says that it has been 5 days since baby A appeared reddish spots on the buttocks, anus and thighs. The objective data obtained is from vital signs within normal limits, namely pulse, respiration, body temperature, physical examination, namely the appearance of reddish pustules on the buttocks, anus, and upper thighs, then diagnose babies with diaper rash degree 2 (moderate), with management providing education to mothers to use cloth diapers that have high absorption and change as often as possible. The problem was resolved after being given treatment for 5 days with the interventions provided, then documentation was carried out using SOAP management.

SUGGESTION

For the author: It is hoped that the author can increase knowledge, insight and real experience in providing midwifery care to babies with nappy rash.

For the field: It is expected to always provide information about the impact of using nappies and preventive management of nappy rash to mothers so as to prevent the occurrence of nappy rash in infants.

For educational institutions: It is expected to be an additional discourse or reference so that it can increase knowledge about midwifery care in infants with nappy rash.

For the baby's mother and family: Increase information either through posyandu activities, counselling during neonatal examinations, or reading the KIA book so as to increase the respondent's knowledge about diaper rash.

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INCREASING KNOWLEDGE ABOUT PREGNANCY EXERCISE AGAINST CHANGE BEHAVIOR OF PREGNANT WOMEN IN THE IMPLEMENTATION OF PREGNANCY EXERCISES

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ABSTRAK : PENINGKATAN PENGETAHUAN TENTANG SENAM HAMILTERHADAP PERUBAHAN PRIILAKU IBU HAMIL DALAM PELAKSANAAN SENAM HAMIL

Pendahuluan : Senam hamil merupakan suatu metode penting untuk mempertahankan atau memperbaiki keseimbangan fisik ibu hamil dan merupakan terapi latihan yang diberikan pada ibu hamil dengan tujuan mencapai persalinan yang cepat mudan dan aman. Menurut data World Health Organization (WHO), pada tahun 2022 seluruh dunia, sekitar 830 wanita meninggal di setiap hari karena komplikasi selama kehamilan atau persalinan. Tujuan penelitian ini untuk mengetahuai distribusi ferkuensi hubungan pengetahuan ibu hamil tentang senam hamil dengan pelaksanaan senam hamil di Klinik Yose Husada Medan Tahun 2023. Metode : Desain yang digunakan dalam penelitian ini adalah survei analitik dengan pendekatan secara cross sectional, yaitu suatu penelitian dimana cara pengukuran variabel bebas dan variabel terikat dalam waktu yang bersamaan. Pengambilan sampel adalah accidental sampling yaitu 35 responden ibu hamil. Teknik analisis dalam penelitian ini menggunakan metode chi-square. Hasil : uji stastik dengan menggunakan uji chi – square test dengan tingkat kepercayaan 95% dengan α =0,016 bahwa nilai singnifikasi probobabilitas pengetahuan ibu hamil tentang senam hamil dengan pelaksanaan senam hamil 0,016 atau nilai p< nilai α =0,05. Kesimpulan : dalam penelitian ini adalah ada hubungan antara pengetahuan ibu hamil tentang senam hamil dengan pelaksanan senam hamil di Klinik Yose Husada Medan Tahun 2023. Saran: Diharapkan kepada tenaga kesehatan untuk memberikan penyuluhan dan edukasi kesehatan tentang pentingnya senam hamil dimasa kehamilan terutama menjelang persalinan.

Kata Kunci : Pengetahun,Senam Hamil

ABSTRACT

Introduction: Gymnastics is pregnant is a method it is important to maintain or improve physical balance pregnant women and exercise therapy is given to pregnant women with the goal of reaching a rapid delivery mudan and secure. According to the World Health Organization (WHO), in the year 2022, about 830 women died every day because of complications during pregnancy or childbirth. The purpose of this research was to mengetahuai distribution ferkuensi the relationship of knowledge of pregnant women on pregnant with gymnastics gymnastics pregnant in clinical implementation Yose Husada Field Year 2023. Methods: the design used in this research is a survey with analytic approach in cross sectional, which is a measurement of the way in which the research variables are free and bound variables at the same time. Sampling is to accidental sampling namely 35 respondents of pregnant women. Analytical techniques in the study using the method of chi-square. The result : a test of stastik by using the chi square test – test with a confidence level of 95% with α = 0.016 singnifikasi probobabilitas that the value of the knowledge of the mother pregnant pregnant with implementation of gymnastics gymnastics pregnant 0.016 or value p < value α = 0.05. Conclusion : in this study is there a relationship between knowledge of pregnant women about gymnastics gymnastics pelaksanan pregnant pregnant with at the clinic the year 2023 Field Husada Yose.Suggestion: it is hoped that health workers will provide health counseling and education about the importance of pregnancy exercise during pregnancy, especially before delivery.

Keywords : Knowledge, Gymnastics Is Pregnant

Endryani Syahfitri, Muthia Sari Mardha, Mariana

INTRODUCTION

Pregnancy and childbirth are physiological things. However, many pregnant women are afraid of facing childbirth. Many pregnant women prefer to rest at home continuously for fear that something will happen to their baby. Pregnant women's decision not to do activities will even make the mother's muscles stiff. Pregnant women who do pregnancy exercises will relax their muscles. Because the aim of pregnancy exercise is to maintain the elasticity of the abdominal wall muscles, so that it can prevent and treat complaints of pain in the buttocks area, pain in the lower abdomen. Pregnancy exercise, this is done at a gestational age of more than 20 weeks. There are many benefits that pregnant women can get from participating in pregnancy exercises, including preparing pregnant women physically and mentally, giving birth quickly, safely and spontaneously (Novitasari et al. 2023).

Pregnancy is a period of growth and development of the intrauterine fetus starting at conception until the beginning of labor. During pregnancy, many physiological changes occur in the body of pregnant women as a form of maternal adaptation, namely physical changes, organ function, changes in the hormonal system, metabolism and psychological conditions related to prenatal stress (Idaningsih 2021).

Pregnancy exercise is the same as regular exercise which makes the body fresh and fit. However, pregnancy exercise is very helpful in the birthing process, because during pregnancy exercise the mother-to-be is prepared both physically and mentally. For fast and spontaneous delivery (Yuliani et al. 2021).

Pregnancy exercise is a movement exercise therapy to maintain the mother's stamina and fitness during pregnancy and prepare the mother physically and mentally to face childbirth optimally, for this reason, pregnancy monitoring and the mother's physical and mental readiness are needed to improve the safety of the mother and baby during the pregnancy, childbirth process (Yanti and Fatmasari 2023). Postpartum and breastfeeding. Pregnancy exercise is recommended for pregnant women so that the birthing process can go smoothly (Sari et al. 2023).

Pregnancy exercises are carried out to prepare physically during pregnancy and childbirth. Pregnancy exercise is used to prepare the leg muscles to adjust to weight gain during pregnancy, train the respiratory organs to be able to adapt to changes in the condition of the stomach so that it can relax and the minimum oxygen requirements for

the body can be met, teach how to oxygenate the body's posture in dealing with the increase in fetal weight and teach again postural reflexes, training the abdominal and pelvic muscles as well as the muscles around the thighs (especially the inner side) so that their strength can be controlled, and also training prospective mothers to be able to prepare physically and mentally by relaxing while controlling muscle work correctly (Hariyani, Nursinta, and Tribintari 2022).

Pregnancy exercise is movement exercise therapy to prepare pregnant women, physically or mentally, for fast, safe and spontaneous labor. Pregnancy exercise is safe for both mother and fetus as long as it is done correctly and there are no other dangerous conditions (Alita 2020).

Pregnancy exercise aims to maintain the elasticity of the abdominal wall muscles, ligaments and pelvic floor, forming good body posture and mastering breathing techniques (Kusumawati, Jayanti, and Khrisna 2019).

Pregnancy is a natural and physiological process. The changes that occur in women during normal pregnancy are physiological, not pathological. Therefore, the care provided is care that minimizes intervention. Midwives must facilitate the natural process of pregnancy and avoid medical procedures that have no proven benefit (Kurniawan 2021).

There are several advantages or benefits for pregnant women in doing pregnancy exercises, such as, strengthening the pelvic muscles so that it can facilitate and speed up the birth process, reducing complaints during pregnancy, strengthening and maintaining the flexibility of the abdominal wall and pelvic floor muscles which are important in the process. labor (Galaupa 2022).

Exercise for pregnancy at 28-30 weeks by doing movements such as posture formation exercises. In a crawling position, the distance between your hands is the same as the distance between your shoulders, and your four limbs are perpendicular to the floor and your body is parallel to the floor. The second is contraction and relaxation exercises. By lying on your back, both knees bent, arms beside the body and relaxed. Lastly, breathing exercises to overcome pain at the end of the first stage (Murni, Wahyuni, and Anggraeni 2022).

Exercises for pregnancy at 31-34 weeks, by doing exercises to form body posture, by standing up straight, both feet parallel to the shoulders, both hands beside the body, and relaxed. The second is contraction and relaxation exercises. First lie on your back, knees bent, right hand on your stomach

and relax. And finally breathing exercises with the aim of overcoming pushing which should not be done. By lying on your back, knees bent, arms beside your body and relaxed. This technique is used when you want to push, but it is prohibited because the opening is not complete (Wakhidah, Rahman, and Wahyuni 2023).

Exercises for pregnancy from the 35th week until delivery in three ways, namely, posture formation exercises. By lying on your back, knees bent, arms beside your body and relaxed. The second is contraction and relaxation exercises, lie on your back, legs slightly apart, arms at your sides, relax your whole body, breathe regularly and rhythmically. breathing exercises for pushing. By lying on your back, hold both knees with both hands and relax (Kasmiati 2023).

According to data from the World Health Organization (WHO), 2020 worldwide, around 830 women died every day due to complications during pregnancy or childbirth in 2015. The global risk of maternal mortality (MMR) decreased from 216 per 100,000 maternal births in 2015 to less than 70 per 100,000 maternal births by 2030. This would require a global annual containment rate of at least 7.5% which is more than three times the annual rate of reduction achieved between 1990 and 2015. It is therefore critical to increase access women to quality care before, during and after giving birth. In 2016, millions of births globally were not attended by a trained midwife, doctor or nurse, with only 78% of births being in the presence of a skilled birth attendant (WHO 2021).

According to the 2020 Indonesian Demographic Health Survey (SDKI), the decline in MMR in Indonesia was 228 per 100,000. Live birth. However, the maternal mortality rate again experienced a significant increase in 2012, namely 359 maternal deaths per 100,000 live births. The decline in MMR occurred in 2023 to 305 maternal deaths per 100,000 live births. The causes of maternal deaths in 2017 in Indonesia were bleeding, hypertension in pregnancy, and infection (KEMENKES 2021).

Based on the 2016 Regency/City Profile, the MMR for North Sumatra is 85/100,000. Live birth. These figures are very different and the estimates do not yet reflect the actual MMR in the population, especially when compared to the results of the 2010 population census. The MMR in North Sumatra was 328/100,000 KH. However, it is still quite high when compared with the national figure from the SP 2010 results, namely 259/100,000 KH. Meanwhile, based on the results of the MMR and IMR survey conducted by the North Sumatra Province health service with FKM – USU in 2010, the MMR in North Sumatra was 268 per 100,000 live births (Agustama 2016).

According to the North Sumatra Health Service, in 2020 the number of pregnant women was 313 people. With pregnant exercise participants in health services, namely from January to December, there were 476 people, with the number of first pregnancies or primigravidas being 137 people (Utara 2021).

Based on research conducted by Elizawarda. Which is entitled the relationship between knowledge and the attitude of pregnant women towards pregnancy exercise in Sei Litur Tasik Village, Sawit Across Langkat Regency in 2013. Where the research results are that the majority of respondents have a good level of knowledge, namely 26 people (72.22%), and the research results that the majority of respondents have attitudes towards pregnancy exercise were 27 people (75.0%), meaning there was a relationship between knowledge and attitudes of pregnant women and attitudes of pregnant women towards pregnancy exercise (Hatini 2019).

Pregnancy exercise is an exercise program for healthy pregnant women whose role is to strengthen contractions and maintain the flexibility of the abdominal wall muscles, ligaments, pelvic floor muscles which withstand additional pressure and are associated with childbirth. Pregnancy exercise can cause better vascularization from the uterus to the placenta which ensures an adequate supply of oxygen and nutrients. The exercises carried out by pregnancy exercise to obtain good strength and muscle tone during the birthing process (Pongsibidang and Mikhrunnisai 2019).

The terms and conditions for participating in pregnancy exercises are that pregnant women are healthy based on a doctor's or midwife's examination. Pregnancies do not have or are at risk of complications such as miscarriage, pregnancies accompanied by bleeding, pregnancies with surgical scars, then pregnancy exercises are carried out after 20-22 weeks of pregnancy, and with the guidance of trained personnel and take place in hospitals or health facilities. Pregnancy exercise can reduce tension and relax feelings of anxiety, as well as prevent fetal abnormalities (Windari, Putri, and Astriani 2019).

Pregnant women who take part in pregnancy exercises are expected to be able to undergo a smooth delivery process, to make the best use of their abilities so that the normal delivery process takes place relatively quickly. Knowledge is an impression in the human mind as a result of the use

of knowledge. Knowledge is very different from belief, superstition and misinformation. Knowledge is everything that is known based on the experience gained by humans (Kasmiati 2023).

Based on the results of research conducted by Nur Aini Nailis Sa'adah 1, Kartika Sari. With the title of the relationship between knowledge of pregnant women about pregnancy exercise in carrying out pregnancy exercise. research with the Kendal Tau correlation test with a significance level of 5% (0.05) at a (p<0.05) then Ho is rejected, this means there is a relationship between knowledge mothers about pregnancy exercise with pregnant women's interest in doing pregnancy exercise at BPS Ar Rahmad, the Kendal Tau correlation number = 0.342 has a positive relationship direction, meaning that the higher the knowledge of pregnant women about pregnancy exercise, the higher the mother's interest in doing pregnancy exercise. Health workers are increasing their education about pregnancy exercise so that pregnant women are interested in doing pregnancy exercise (Sari and Yusniarita 2021).

Based on the results of research obtained by Arta nti Julaikha, with the title the relationship between knowledge and the motivation of pregnant women to do pregnancy exercises in Tanjung Rejo village, Jekulo District, Kudus Regency. Based on the statistical test used, namely person chi-square, the results of the study showed that 53 respondents (57.0%) had good knowledge of pregnant women about pregnancy exercise, and 44 respondents (47.0%) had low motivation for pregnant women to do pregnancy exercise. 3%,). Chi-square percent analysis shows there is a relationship between knowledge and the motivation of pregnant women to do pregnancy exercise in Tanjung Rejo village, Jekulo District, Kudus Regency with a p-value of 0.029 (p < 0.05). There is a relationship between knowledge and the motivation of pregnant women to do pregnancy exercises in Tanjung Rejo Village, Jekulo District, Kudus Regency in 2021.

Based on the results of research obtained by Citra Prastika Sari with the title: Knowledge of pregnant women about pregnancy exercise by implementing pregnancy exercise in the work area of the urban health center in Bukit Tinggi City in 2014. (Zulaikhah and Widyaningsih 2016)

The research was carried out from February to April 2022. The sampling technique involved a total sampling of 32 respondents. Data management is carried out using the chi-square statistical test using a computerized system. From the results of univariate data management, it was found that 18 (56.25%) respondents had low

knowledge and 11 (65.6%) respondents were not active in implementing pregnancy exercise. The results of bivariate analysis showed that the majority of pregnant women had low knowledge about pregnancy exercise, as many as 16 respondents (88.9%) with a p value = 0.003 <0.05. The conclusion from the results of this research is that there is a relationship between pregnant women's knowledge about pregnancy exercise and the implementation of pregnancy exercise in the work area of the urban health center in Bukit Tinggi City in 2022. In this study, it is hoped that health workers will be able to motivate and provide counseling about the benefits of pregnancy exercise on pregnancy. and childbirth so that it can improve the health status of pregnant women (Pratama and Maya 2018).

Based on the results of research conducted by Sundari (2020) regarding the relationship between knowledge of pregnant women and the implementation of pregnancy exercise at the Yose Husada Clinic in Medan, it can be concluded that of the 30 respondents (100%), the majority of respondents had something lacking about pregnancy exercise, 16 respondents (53, 3%), who did not do pregnancy exercises were 11 respondents (36.7%), and the minority of respondents had good knowledge about pregnancy exercises as many as 5 respondents (16.7%), and did pregnancy exercises as many as 5 respondents (16, 7%). Pregnant women who had sufficient knowledge were 9 respondents (30.%) and those who did pregnancy exercise were 3 respondents (10%), statistical results with a knowledge level of 95% and an alpha value = 0.05, it could be seen that p = 0.020 <α= 0.05 can be concluded that Ha is accepted, which means there is a relationship between knowledge of pregnant women and the implementation of pregnancy exercises at the Yose Husada Clinic in Medan in 2020, mothers with less knowledge tend not to do pregnancy exercises (Istiqomah et al. 2020).

Based on an initial survey conducted by researchers at the Yose Husada Clinic Jl. Aluminum 1 NO. 15 Tanjung Mulia Medan in 2023. By conducting direct observations, 12 pregnant women were found who did pregnancy exercises, but among the 12 pregnant women there were 4 people Pregnant women who do pregnancy exercises regularly. And 8 people did not do pregnancy exercises regularly. For reasons of fear that something will happen to the baby. And in other words, there are still many pregnant women who do not do pregnancy exercises at the Yose Husada clinic in 2023.

RESEARCH METHODS

This research design uses an analytical method with a cross-sectional approach to see the relationship between the independent variable and the dependent variable. Where the independent variable is (knowledge of pregnant women) and the dependent variable (implementation of pregnancy exercises) at the Yose Husada clinic in Medan in 2023. The population in this study was 45 pregnant women in the first trimester and third trimester at the Yose Husada Clinic, Medan City from May to June, and the sampling technique in this study used purposive sampling of 35 people at the Yose Husada Clinic, Medan City. Primary data, namely data that supports the research, was obtained directly from respondents at the Yose Husada Clinic, which was obtained through a research questionnaire. A questionnaire is a method of collecting data through a list of questions (questionnaire) which is asked to respondents using a questionnaire. Knowledge is 20 questions, and implementation is 1 question. Data collection was obtained using secondary data including a list of the population of pregnant women who came to visit for ANC examinations at the Yose Husada Clinic in Medan. Tertiary data is data obtained from published manuscripts, WHO 2022 SDKI 2023 data (Indonesian Health Demographic Survey). The method of collecting data is that the researcher comes to the Yose Husada clinic, when the researcher meets pregnant women in the second trimester and third trimester, the researcher gives a questionnaire to the respondent to fill in without asking other friends, the respondents are taken according to the research needs. Data analysis using the SPSS program univariate analysis and bivariate analysis was used to determine the relationship (correlation) between the independent variable and the dependent variable using statistics, namely the chi square test (Muhammad 2015)

RESEARCH RESULTS

Based on table 1, it can be seen that 19 respondents had junior high school education (54%), and 6 respondents had elementary school education (17%), and 5 respondents had high school education (14%) and 5 respondents had higher education (14%).).Univariate analysis is used to describe the data carried out on each variable from the research results. Data is presented in the form of a frequency distribution table. Based on table 1, it can be seen that the frequency distribution of knowledge of pregnant women at the Yose Husada Clinic in Medan in 2023 from 35 respondents with less knowledge was 5 respondents (6.5%), 14 respondents had sufficient knowledge (18.2%), and good knowledge. as many as 16 respondents (20.8%).

Table 1
Frequency Distribution Based on Education, Knowledge and Implementation of Pregnancy Exercises

Variable	Jumlah	
	n	Persentase
Education		
Elementary School	6	17
Middle School	19	54
High School	5	14
College	5	14
Knowledge		
Good	16	20,8
Enough	14	18,2
Less	5	6,5
Implementation of Pregnancy Exercises		
Do	11	14,3
Do not do	24	31,2

Based on 1. it can be seen that the frequency distribution of carrying out pregnancy exercise at the Yose Husada Clinic in Medan 2023, of the 35 respondents who did not do pregnancy exercise, was 24 respondents (31.2%), and 11 respondents (14.3%) did pregnancy exercise.

Based on the cross tabulation in table 2, it can be seen that the frequency distribution of the 35 respondents with good knowledge was 16 respondents (16.0%) who did pregnancy exercise, 2 respondents (5.0%) who did not do pregnancy exercise, 14 respondents (11.0%) , and those with

sufficient knowledge were 14 respondents (14.0%) and those who did pregnancy exercise were 4 respondents (1.6%) and those who did not do pregnancy exercise were 1 (3.4%) and those who did not do pregnancy exercise were 9 respondents (9.6%), while the category with less knowledge was 5 respondents (5.0%), 4 respondents (1.6%) did pregnancy exercise and 1 respondent did not do pregnancy exercise (3.4%). After carrying out a statistical test using the chi_sguare test with a confidence level of 95% with α=06.016, the significant value of the probability of pregnant women's knowledge about pregnancy exercise and the implementation of pregnancy exercise is 0.016 or p value <α value = 0.05. This proves that there is a relationship between pregnant women and the implementation of pregnancy exercises at the Yose Husada Clinic in Medan in 2023.

Table 2

Increasing Knowledge About Pregnancy Exercise Against Change Behavior Of Pregnant Women In The Implementation Of Pregnancy Exercises At Yose Husada Clinic Medan

| Variable | Implementation of Pregnancy Exercises | | | | | | Asympsig |
| | Do | | Do not do | | Total | | |
	f	%	f	%	F	%	
Less	2	5,0	14	11,0	16	16,0	
Knowledge	5	4,4	9	9,6	14	14,0	0,016
Good	4	1,6	1	3,4	5	5,0	

DISCUSSIONS

Based on the results of research conducted on 35 respondents at the Yose Husada Clinic in Medan for the 2017-2018 period regarding "the relationship between knowledge of pregnant women and the implementation of pregnancy exercise" it is known that there are still those who have good knowledge who do not fully carry out pregnancy exercise (11%). This is because the place and facilities are inadequate so that more respondents do not carry out pregnancy exercise.

Based on the results of statistical tests using the chi-square test with a confidence level of 95% with α= 0.016, the significant value of the probability of knowledge of pregnant women and the implementation of pregnancy exercise is 0.016 or p value < α value = 0.05. This proves that there is a relationship between mothers and mothers. pregnant regarding the implementation of pregnancy exercises at the Yose Husada Clinic in Medan in 2023.

Knowledge is the result of human sensing, or the result of a person's "knowing" objectively through the senses they have (eyes, nose, ears), and itself at the time of sensing to produce this knowledge is greatly influenced by the intensity of attention and perception of the object. Pregnancy exercise is a movement exercise therapy to maintain the mother's stamina and fitness during pregnancy and prepare the mother physically and mentally to face childbirth optimally, for this reason, pregnancy monitoring and the mother's physical and mental readiness are needed to improve the safety of the mother and baby during the pregnancy,

childbirth process. postpartum and breastfeeding. Pregnancy exercise is recommended for pregnant women so that the birthing process can go smoothly(Rahmah, Malia, and Maritalia 2022).

Pregnancy exercises are carried out to prepare physically during pregnancy and childbirth. Pregnancy exercise is used to prepare the leg muscles to adjust to weight gain during pregnancy, train the respiratory organs to be able to adapt to changes in the condition of the stomach so that it can relax and the minimum oxygen requirements for the body can be met, teach how to oxygenate the body's posture in dealing with the increase in fetal weight and teach again postural reflexes, training the abdominal and pelvic muscles as well as the muscles around the thighs (especially the inner side) so that they can control their strength, and also training prospective mothers to be able to prepare physically and mentally by relaxing while controlling muscle work correctly (Yuliani et al. 2021).

Pregnancy exercises are exercise movements performed on pregnant women after 22 weeks of pregnancy. Pregnancy exercises aim to prepare and train the muscles so that they can function optimally during normal delivery and compensate for changes in the body's center of gravity (Anggeni and Yuanita 2022). Pregnancy exercise is indicated for pregnant women without abnormalities and no diseases accompanying pregnancy, namely heart disease, kidney disease, and complications in pregnancy (pregnancy with bleeding, location abnormalities, and pregnancy

accompanied by anemia) (Sukmawati and Nurhasanah 2022).

Anxiety and stress during pregnancy, especially in the third trimester, result in a decrease in birth weight and an increase in HHA (Hypothalamus-Pituitary-Adrenal) which causes changes in steroid hormone production, damage to social behavior and fertility rates in adulthood. Apart from that, it is related to emotional problems, hyperactivity disorders, decentralization and impaired cognitive development in children (Astuti, Pangesti, and Rakhmawati 2021). Pregnancy exercise can reduce anxiety and stress levels in pregnant women, the movements carried out in cooling movements are useful for overcoming the pressure or tension felt during pregnancy (Robin 2021). This is proven based on data obtained after pregnant women were given pregnancy exercises, the mother's stress level became light and normal (Galaupa 2022).

Based on the results of research conducted by Sundari (2020) regarding the relationship between knowledge of pregnant women and the implementation of pregnancy exercise at the Yose Husada Clinic in Medan, it can be concluded that of the 30 respondents, the majority of respondents had something lacking about pregnancy exercise, 16 respondents (53.3%), Those who did not do pregnancy exercise were 11 respondents (36.7%), and the minority of respondents who had good knowledge about pregnancy exercise were 5 respondents (16.7%), and 5 respondents (16.7%) did pregnancy exercise. There were 9 respondents (30%) who had sufficient knowledge of pregnant women and 3 respondents (10%) who did pregnancy exercise.

According to researchers' assumptions, based on research results, each pregnant woman has a different level of knowledge. So in this case, the implementation of pregnancy exercises is also influenced by the level of knowledge. As can be seen from the results of this study, the majority of respondents did not do pregnancy exercise, there were 24 respondents, because the respondents had sufficient knowledge, apart from that the respondents did not understand the benefits of carrying out pregnancy exercise. Meanwhile, the category of respondents who have good knowledge but do not fully do pregnancy exercises is still 11.0%. This means that those who have good knowledge and do not do pregnancy exercises are due to inadequate facilities so that more respondents do not do pregnancy exercises. So in this case health workers invite and train pregnant

women about the importance of doing pregnancy exercises.

CONCLUSIONS

There is a relationship between pregnant women's knowledge about pregnancy exercise and the implementation of pregnancy exercise.

SUGGESTION

It is hoped that all pregnant women can increase their knowledge, especially about the importance of carrying out pregnancy exercises, in order to improve the health of the mother and fetus and it is hoped that health workers will provide health counseling and education about the importance of pregnancy exercise during pregnancy, especially before delivery.

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LOW KNOWLEDGE AND ATTITUDE OF ADOLESCENT WOMEN REGARDING NUTRITION RESULTS IN THE INCIDENT OF ANEMIA IN ADOLESCENT WOMEN

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ABSTRAK RENDAHNYA PENGETAHUAN DAN SIKAP REMAJA PUTRI TENTANG GIZI MENGAKIBATKAN KEJADIAN ANEMIA PADA REMAJA PUTRI

Latar Belakang : remaja putri merupakan salah satu kelompok yang rentan menderita anemia dikarenakan remaja putri mengalami mentruasi setiap bulan, selain itu remaja putri juga sering menjalani diet demi mendapatkan bentuk tubuh yang langsing ideal, sayangnya diet yang mereka lakukan lebih mengarah kepada diet tidak sehat karena kurang memperhatikan kecukupan gizi dari makanan yang mereka konsumsi. Tujuan: penelitian ini untuk mengetahui hubungan pengetahuan dan sikap tentang gizi dengan kejadian anemia pada remaja putri kelas XI IPA SMAN 6 Tanjung Jabung Barat tahun 2023. Metode: desain penelitian ini adalah penelitian survei analitik Dengan desain cross sectional. Penelitian dilakukan di SMAN 6 Tanjung Jabung Barat tahun 2023. Waktu penelitian bulan April s/d September tahun 2023. Populasi adalah seluruh remaja putri di SMAN 6 Tanjung Jabung Barat tahun 2023 berjumlah 48 orang. Sampel diambil secara total sampling berjumlah 48 orang. Analisa data dengan univariat dan bivariat dengan uji chi square. Hasil : 35,4% responden berpengetahuan cukup tentang gizi remaja putri, 60,4% responden dengan sikap positif tentang gizi remaja putri dan 68,8% remaja putri dengan tidak anemia.Hasil bivariat ada hubungan pengetahuan (p value 0,000) dan sikap (p value 0,003) dengan kejadian anemia pada remaja putri kelas XI IPA SMA N 6 Tanjung Jabung Barat Tahun 2023. Kesimpulan: hasil uji chi-square menunjukkan ada hubungan pengetahuan dan sikap dengan kejadian anemia remaja putri. Saran : bagi tempat penelitian Diharapkan penelitian ini dapat digunakan sebagai masukan agar melakukan penyuluhan ditempat bekerja kepada remaja putri tentang faktor yang mempengaruhi anemia pada remaja putri.

Kata Kunci: Anemia Remaja Putri, pengetahuan, sikap

ABSTRACT

Background: Adolescent girls are one of the groups that are vulnerable to suffering from anemia because adolescent girls experience menstruation every month, apart from that, adolescent girls also often go on diets to get an ideal slim body shape, unfortunately the diet they follow is more likely to lead to an unhealthy diet because they lack pay attention to the nutritional adequacy of the food they consume. Objective: This research is to determine the relationship between knowledge and attitudes about nutrition and the incidence of anemia in female teenagers in class XI IPA at SMAN 6 Tanjung Jabung Barat in 2023. Method: The design of this research is analytical survey research with a cross sectional design. The research was conducted at SMAN 6 Tanjung Jabung Barat in 2023. The research period was April to September 2023. The population was all young women at SMAN 6 Tanjung Jabung Barat in 2023 totaling 48 people. Samples were taken as a total sampling of 48 people. Data analysis was done using univariate and bivariate using chi square test. Results: 35.4% of respondents had sufficient knowledge about adolescent girls' nutrition, 60.4% of respondents had a positive attitude about adolescent girls' nutrition and 68.8% of adolescent girls were not anemic. Bivariate results showed a relationship between knowledge (p value 0.000) and attitude (p value 0.003) with the incidence of anemia in teenage girls in class Suggestions: for research sites. Conclusion:It is hoped that this research can be used as input for conducting outreach in workplaces to young women about the factors that influence anemia in young women.

Keywords: Anemia in Adolescent Girls, knowledge, attitudes

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INTRODUCTION

Anemia is a problem that many developing countries and even developed countries still experience. The incidence of anemia is still very high both globally and nationally, including in Indonesia. Teenage girls are one of the groups that are vulnerable to suffering from anemia because teenage girls experience menstruation every month. Apart from that, teenage girls also often go on diets to get an ideal slim body shape. Unfortunately, the diet they follow is more towards an unhealthy diet because they don't pay attention to adequate nutrition. from the food they consume. Adolescent girls who suffer from anemia are at risk of developing anemia during pregnancy. This has a negative impact on the growth and development of the fetus in the womb and has the potential to cause complications in pregnancy and childbirth (Istiqumilaily et al. 2023).

Anemia is a condition where blood hemoglobin (HB) or the number of red blood cells in the body is insufficient to meet the body's physiological needs. Anemia is very diverse and is often caused by many factors. Symptoms experienced due to low HB levels include disruption of tissue oxygen delivery so that sufferers will experience weakness, lethargy, difficulty concentrating or poor work productivity. Severe iron deficiency anemia increases the risk of premature birth, low birth weight, maternal and child death, and can predispose to infection and heart failure. (Apriningsih 2023).

Nutrition and health interventions must be carried out at every stage of the life cycle to achieve optimal health, carried out continuously during the periods of conception, pregnancy, neonates, infants, toddlers, children, school age and adolescents (Utama 2021). Intervention for adolescent girls and women of childbearing age is very important because it will determine the quality of the next generation's human resources. Young women who are healthy and not anemic will grow and develop into healthy mothers-to-be and give birth to healthy babies (Kemenkes 2018).

Nutritional anemia caused by Iron deficiency is a nutritional disorder the most frequently encountered in the country growing and becoming epidemic. Anemia Iron deficiency is anemia that occurs due to empty body iron reserves thus providing iron for erythropoiesis is reduced resulting in reduced hemoglobin formation (Kumalasari et al. 2019).

Adolescent groups generally have better nutritional conditions than toddler groups and school children, because this age group is easily reached by various nutritional improvement efforts carried out by the government and private groups. Unfortunately, there are many problems that often arise in adolescent nutrition, such as underweight, obesity and anemia (Apriyanti 2019). These problems arise due to several causes, such as young women who menstruate every month so they have to lose a lot of blood, teenagers often follow unhealthy diets without paying attention. nutritional adequacy of the food they consume so that the nutritional intake that comes in is less than actual needs, teenagers are in their growth period so their nutritional needs increase (Utami 2021).

Anemia is a serious global public health problem, especially affecting children, teenagers, women who are menstruating, women who are pregnant and also after giving birth. According to the World Health Organization (WHO), teenagers and women aged 15 – 49 years throughout the world suffer from anemia (Who 2021).

The incidence of anemia in Indonesia is still quite high. Based on 2018 Riskesdas data, the prevalence of anemia in teenagers is 32%, meaning 3-4 out of 10 teenagers suffer from anemia. One of the reasons for this is that nutritional intake habits are not optimal. The Ministry of Health has carried out specific interventions by administering Blood Supplement Tablets (TTD) to adolescent girls and pregnant women. Apart from that, the Ministry of Health also tackles anemia through education on the promotion of balanced nutrition, iron fortification of food ingredients and the implementation of clean and healthy living (Kemenkes RI 2021).

There are many factors that cause anemia in teenagers, there are direct causes such as iron deficiency and infectious diseases, there are indirect causes such as low parental attention to teenagers, high teenage activity, and food distribution patterns in the family, then there are other basic causes. such as economic problems, low parental income, low social status, education, knowledge, attitudes, and difficult geographical location (Rahayu A, Yulidasari F, Putri AO 2019).

The impact of anemia on teenage girls includes reducing the body's resistance so that sufferers are more susceptible to infections, reducing fitness and ability to think due to reduced oxygen intake into brain cells so that it can reduce learning achievement and productivity at work, teenagers become more easily tired and fatigued. , lethargic and weak so that concentration in studying is reduced (Kemenkes 2018).

Anemia in adolescent girls in Jambi Province in 2021 was 20.9%. Anemia survey of pregnant women according to age, namely pregnant women

in their teens (15 – 24 years) experienced anemia of 84.6%. Data obtained from the West Tanjung Jabung District Health Service, the number of teenagers suffering from anemia was 28.27% (Dinkes 2021).

Anemia that occurs in women according to Pateretal 2015 causes problems serious health problems occur in the country develop. Research according to Rati, S.A., & Jawadagi, S. also stated that The prevalence of anemia is more common in girls over 14 years old. Anemia often occurs in young women and girls The prevalence of anemia in the world ranges from 40-88% (Himawan et al. 2020). Cases of anemia result in disruption immune mechanisms and improve causes death in the world. WHO program in reduce the incidence of anemia in adolescents, namely by giving Iron tablets through coordination with health institutions around the world. Prevalence of anemia in women in Indonesia, namely 21.7% with anemia sufferers aged 5-14 years amount to 26.4% and 18.4% of sufferers were aged 15-24 year. The prevalence of anemia is considered to be health problems if >15% (Us and Safitri 2023).

Iron deficiency anemia can have various impacts on teenagers including lowering the body's resistance so that it is easy to get disease, it decreases learning activities and achievements (Lutfitasari 2021). Besides that teenage girls suffering from anemia his fitness will also decrease, so hinder sports performance and its productivity. Apart from that, adolescence It's a period of great growth quickly, iron deficiency at this time will resulting in not achieving height optimal (Wulandari 2020).

Sitanggang's research (2019), regarding factors that influence anemia in adolescent girls at Prima Tembung High School in 2019. The number of research subjects was 31 respondents, the variables tested included 5 variables, namely: the influence of knowledge. The results of the chi-square test showed that pValue = 0.026 < 0.05, the influence of attitude shows a value of pValue=0.041 <0.05, the influence of food intake patterns pValue=0.023<0.05, the influence of family income which shows a value of pValue=0.023<0.05 and finally the influence of iron supplement intake with Anemia in adolescent girls at Prima Tembung High School in 2019 showed a pValue=0.041<0.05. Many young women experience a lack of nutrients in their daily consumption. Iron deficiency is considered the most common cause of anemia globally, but several other causes: nutritional deficiencies (including folic acid, vitamin B12 and vitamin C), acute illnesses, chronic inflammation,

parasites, infections and bleeding are also causes of anemia (Sitanggang 2019).

Based on data obtained from the Sukarejo Community Health Center, Betara District in 2022, out of a total of 103 young women who had their blood hemoglobin checked, 29 people (28.1%) of them had anemia (Puskesmas Sukarejo 2022)

State High School 6 Tanjung Jabung Barat is one of the State High Schools in Betara District which is the work area of the Sukarejo Health Center where the students are in the teenage age category. The total number of female students is 470 people, consisting of 220 students and 251 female students. Class XI Science is one of the classes that has the most female students, namely 48 people (Staf tata usaha 2022).

Based on an initial survey conducted at SMAN 6 Tanjung Jabung Barat in May 2023, measurements of blood hemoglobin levels carried out on young women in class which means that 7 female students suffer from anemia. In the initial survey the author also conducted interviews, from the results of the interviews it was found that the majority of young women did not know what balanced nutrition was, what was meant by anemia, the causes of anemia, risk factors for anemia and how to deal with it if they suffered from anemia. The attitude of young women regarding anemia prevention behavior is still not good, such as preferring to choose instant foods and not paying attention to nutritional intake in them, dieting incorrectly, not consuming enough vegetables and fruit because they don't like them and not knowing the benefits in them. the vegetables and fruit.

Based on the background above, the author is interested in conducting research with the title "The Relationship between Knowledge and Attitudes About Nutrition and the Incidence of Anemia in Adolescent Girls in Class XI Science at SMAN 6 Tanjung Jabung Barat in 2023."

The aim of this research is to determine the relationship between knowledge and attitudes about nutrition and the incidence of anemia in female teenagers in class XI IPA at SMAN 6 Tanjung Jabung Barat in 2023.

RESEARCH METODS

The type of research used is an analytical survey, with a cross sectional approach to determine the relationship between independent variables (knowledge, attitudes) and the dependent variable (incidence of anemia). Data sources are taken from primary and secondary data. This research was conducted in 2023 with a sample of teenage girls in class XI Science at SMAN 6

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Tanjung Jabung Barat, using a sampling technique in this research using the total sampling method. The population in this study was all young women at SMAN 6 Tanjung Jabung Barat in 2023 totaling 48 people and the sample in this study used a total sampling of 48 young women at SMAN 6 Tanjung Jabut Barat. Data were collected in this study by distributing questionnaires which were directly distributed to the young women of SMAN 6 Tanjung Jabung Barat after the young women filled out the questionnaire without being allowed to ask other respondents.Data analysis using the SPSS program univariate analysis and bivariate analysis was used to determine the relationship (correlation) between the independent variable and the dependent variable using statistics, namely the chi square test.

RESEARCH RESULTS

Table 1
Frequency Distribution of Respondents Based on Age

Respondent Characteristics	Total (n)	Persentase (%)
Early Teens (10-14 year)	0	0,0
Middle Teens (15-16 year)	4	8,3
Late Teens (17-20 year)	44	91,7

Characteristics of respondents: Based on table 1. Below, it is known that of the 48 respondents, the majority of 44 people (91.7%) were in the late teenage age range (17-20 years).

Table 2
Frequency Distribution of Respondents Based on Knowledge, Attitudes and Anemia Status of Young Women

Variabel	Total (n)	Persentase (%)
Knowledge		
Lees	15	31,2
Enough	17	35,4
Good	16	33,3
Attitude		
Negative	19	39,6
Positive	29	60,4
Anemic Status		
Anemic	15	31,2
No Anemia	33	68,8

Based on table 2. above, it was found that of the 48 respondents, the majority of 17 people (35.4%) had sufficient knowledge, 16 people (33.3%) respondents had good knowledge and 15 people (31.2%) respondents had poor knowledge about nutrition of adolescent girls, the majority of 29 people (60.4%) respondents with positive attitudes and 19 people (39.6%) respondents with negative attitudes about nutrition of adolescent girls and the majority of 33 people (68.8%) of adolescent girls with no anemia and 15 (31.2%) young women with anemia.

Table 3
Cross tabulation between knowledge and the incidence of anemia in young women

Knowledge	Anemia In Adolescent Girls				Total		P
	Anemic		No Anemic				
	n	%	n	%	n	%	
Lees	3	6.23	12	25.0	15	31.3	
Enough	15	31.3	2	4.1	17	35.4	0,002
Good	15	31.3	1	2.1	16	33.3	

Based on table 3. above, of the 48 respondents, it can be seen that the cross tabulation between knowledge and anemia in young women shows that the majority of respondents with poor knowledge experienced anemia, namely 12 people (25.0%), higher than those who were not anemic, which was 3 people (6.23). %), most of the respondents who had sufficient knowledge were not anemic, namely 15 people (31.3%) higher than those who were anemic, namely 2 people (4.1%)

respondents, while the majority of respondents with good knowledge were not anemic, namely 15 people (31.3%) higher than those with anemia which was only 1 person (2.1%).

The results of further statistical tests were obtained, respectively, the p value was knowledge (0.002<0.05), so it can be concluded that there is a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023

Table 4
Cross tabulation between attitudes and the incidence of anemia in young women

| Attitudes | Anemia In Adolescent Girls | | | | Total | | p value |
| | No Anemic | | Anemic | | | | |
	n	%	n	%	n	%	
Negative	8	16.6	11	23.0	19	39.6	0,003
Positive	25	53.0	4	8.4	29	60.4	

Of the 48 respondents, it can be seen that the cross tabulation between attitudes and anemia among young women shows that the majority of respondents with negative attitudes experienced anemia, namely 11 people (23.0%) higher than those who were not anemic, 8 people (16.6%) and respondents with positive attitudes. The majority were not anemic, namely 25 people (53.0%) higher than those who had anemia as many as 4 people (8.4%).

The results of further statistical tests were obtained, respectively, the p value was attitude (0.003 < 0.05) so it can be concluded that there is a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023.

DISCUSSIONS
The Relationship between Knowledge About Nutrition and the Incidence of Anemia in Adolescent Girls

The results of the analysis showed that there was a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023, with a p-value of 0.000.

In line with research conducted by Rahayu et al. (2021) States that there is a relationship between the level of knowledge and the incidence of anemia in adolescent girls. Young women who have good knowledge about anemia will tend to consume enough food to meet their nutritional needs to avoid the problem of anemia. Adolescent girls are also a population that has a higher risk of developing anemia than boys. This happens because young women experience menstruation and have the desire to stay slim, so dieting reduces eating which has an impact on meeting nutritional deficiencies (Irene 2019).

Research conducted by Ikbal Firdausi (2022) on factors that influence the incidence of anemia in adolescent girls in secondary schools in Panyipatan sub-district, Tanah Laut Regency. The results of the study show that the factors that influence the incidence of anemia in young women are nutritional status with results obtained at p=0.041, consumption of blood supplement tablets with p=0.034, physical activity with p=0.027, knowledge with p= 0.012 and distribution of blood supplement tablets. blood with 0.040, while factors that did not influence the incidence of anemia in young women were eating habits with p=0.570, infected status with p=0.398, menstrual pattern status with p=0.597 and parents' income p=0.668(Tahji, firdausi I 2022).

This research is not in line with Chyntaka & Nurmala, (2020) that there is no relationship between knowledge and the incidence of anemia, because the majority have very good knowledge. Knowledge is gained when we go to school, but knowledge is also gained when we encounter problems or life experiences. Knowledge is the result of what has been known or studied, knowledge usually occurs after carrying out a sense such as seeing, hearing, feeling, touching and smelling (Chyntaka and Nurmala 2020).

Anemia can occur due to deficiencyiron. Bone marrow needs iron to produce blood hemoglobin. Sufficient blood loss such as during menstruation, accidents, and blood donation Too much can remove iron from inside the body. Iron deficiency anemia is anemia that arises due to a decrease in the number total iron in the body so that reserves iron for erythropoiesis is reduced(Nurbadriyah 2019).

Knowledge is everything that humans are aware of about something, its characteristics, situation, and expectations. Everyone in the world has the right to knowledge. People gain knowledge through experimentation, experience, intuition, revelation, or logic. Knowledge is a process that occurs after humans perceive a certain object. The prevalence of anemia is greatly influenced by public knowledge about the condition. The incidence of anemia will increase as teenagers' knowledge about anemia decreases (Masturoh and Nauri 2018).

Knowledge is the result of "knowing" and this occurs after people sense a particular object. Sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste and touch. The time from sensing to producing knowledge is greatly influenced by the intensity of perceptual attention to the object. Most human

knowledge is obtained through the eyes and ears (Atikah et al. 2021).

Lawrence Green states that health behavior is influenced by three factors, namely predisposing factors, supporting factors and driving factors. Knowledge is a predisposing factor, which means it is an internal factor within the individual that makes it easier for the individual to behave better. Good knowledge will help young men to prevent anemia. The higher the knowledge about anemia prevention, the more young women will know how to react to efforts to prevent anemia (Masturoh and Nauri 2018).

One of the knowledge that young women must have is knowledge about balanced nutrition and also about anemia. Anemia is a medical condition in which the number of red blood cells or hemoglobin is less than normal. A teenager or non-pregnant woman is said to be anemic if the hemoglobin level is less than 12.0 grams/100 ml (Atikah et al. 2021).

The researcher's assumption is that if young women have good knowledge, then young women will choose to eat well to prevent anemia. This is in accordance with several studies which state that there is a relationship between knowledge and the incidence of anemia among young women. However, if the level of knowledge is good but is not accompanied by changes in behavior in daily life, it does not rule out the possibility that the young woman will experience anemia, this happens if the young woman does not regularly take iron tablets.

The Relationship between Attitudes About Nutrition and the Incidence of Anemia in Adolescent Girls

The results of the analysis showed that there was a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023, with a p-value of 0.003. The results of the research are in line with research by Rantika (2019) which states that there is a relationship between attitudes and anemia prevention behavior, p-value = 0.034, because attitudes have entered the stage of respect and responsibility which has an impact on anemia prevention behavior being good (Rantika 2019).

The results of this study are also the same as those of Simanungkalit and Simarmata (2019) regarding the knowledge and consumption behavior of adolescent girls which are related to anemia status, which shows that the factors related to anemia are nutritional status with p=0.034 and

consumption patterns of Fe inhibitors p=0.009(Simanungkalit and Simarmata 2019).

Anemia often occurs among people who have a socio-economic status low. Research in Indonesia conducted by Survival for Women and Children (SWACH) Foundation found that socio-economic status also matters factors that influence the occurrence of events anemia in adolescents. Determinants of anemia Other iron deficiencies include income low levels and resulting poverty at low food intake and a diet low in micronutrients.This situation is also influenced by a lack of understanding of the pattern eating variety and its importance food sources of micronutrients can promote or inhibit absorption iron by the body (Taufiqa, Ekawidyani, and Sari 2020).

Problems with nutritional status among teenagers in Indonesia include a lack of macronutrients (carbohydrates, protein, fat) and a lack of micronutrients (vitamins, minerals). Lack of macro and micro nutrients causes the body to become thin, lose weight, anemia and get sick easily. Nutritional status is a macro description of our body's nutrients, including iron. Where if the nutritional status is not normal, it is feared that the iron status in the body will also not be good. So it can be said that nutritional status is a risk factor for anemia (Sari et al. 2022).

Attitude is a view or opinion or feeling towards a particular object or person or event. Furthermore, a person's attitude response is usually shown in the degree of like or dislike, or it can also involve agreeing or disagreeing (Swarjana 2022).

To translate an attitude into action, supporting factors or enabling conditions are needed, such as facilities or infrastructure. After someone knows the stimulus or health object, then makes an assessment or opinion about what is known, the next process is expected to be that he will carry out or practice what he knows or considers good. Factors that can influence attitudes include the attitudes of people inside the house, how they relate to people outside the house, comfortable environmental conditions and experiences (Masturoh and Nauri 2018).

According to Notoatmojo, defining the meaning of attitude very simply is that attitude is a syndrome or collection of symptoms in response to object stimuli. So this attitude involves thoughts, feelings, attention and other psychological symptoms. Attitude is a reaction or response that is still closed from a person to a stimulus or object. Attitude is not yet an action or activity, but is still a predisposition to the action of a behavior. The level

of an attitude is accepting, responding, appreciating, being responsible (Masturoh and Nauri 2018).

Researcher Sari stated that positive and negative attitudes, a positive attitude itself is an attitude that reflects a sense of joy, empathy and mutual support for each other to become better in the future. A negative attitude is an attitude that feels dissatisfied with our success in achieving our dreams, always inviting us to do wrong things (Sari 2017).

The researcher's assumption is that young women who have a positive attitude will change the behavior of young women to be good for preventing anemia, in accordance with the research conducted that attitude influences the incidence of anemia among young women. It is not only enough for young women to have a good level of knowledge about anemia, but this must also be reflected in their attitudes. Young women with a positive attitude do not rule out the possibility of experiencing anemia, this is because they have low knowledge and lack of support from people around them.

CONCLUSION

There is a relationship between knowledge about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023 with p value=0.000 (P<0.05). There is a relationship between attitudes about nutrition and the incidence of anemia in young women in class XI Science at SMA N 6 Tanjung Jabung Barat in 2023 with p value=0.003 (P<0.05).

SUGGESTION

It is hoped that the results of this research can increase knowledge and experience regarding the relationship between knowledge and attitudes about nutrition with the incidence of anemia in teenage girls in class iron for teenagers, as well as ways to prevent anemia during adolescence because adolescence is a period of growth and development that requires special attention to avoid anemia.

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THE EFFECT OF ABDOMINAL LIFTING MASSAGE ON INTENSITY LABOR PAIN IN THE 1ST ACTIVE PHASE

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ABSTRAK : PENGARUH PIJAT ABDOMINAL LIFTING TERHADAP INTENSITAS NYERI PERSALINAN KALA I FASE AKTIF

Latar belakang : Nyeri persalinan yang timbul semakin sering dan semakin lama dapat menyebabkan ibu gelisah, takut dan tegang bahkan stres yang berakibat pelepasan hormon yang berlebihan seperti adrenalin, katekolamin dan steroid (Sulistiawati & Ningrum, 2020). Sebagian besar persalinan (90%) selalu disertai rasa nyeri sedangkan rasa nyeri pada persalinan merupakan hal yang lazim terjadi, nyeri selama persalinan merupakan proses fisiologis dan psikologis (Rejeki & Irawan, 2019). Angka nyeri persalinan yang dilaporkan didapatkan hasil bahwa rata-rata di Indonesia sebanyak 85-90% Wanita hamil yang akan menghadapi persalinan mengalami nyeri persalinan yang hebat dan 7-15% tidak disertai rasa nyeri (Fitriawati et al., 2021).

Tujuan : Tujuan penelitian ini adalah Untuk mengetahui Pengaruh Abdominal Lifting Massage Terhadap Intensitas Nyeri Persalinan Kala I Fase Aktif Di PMB Dince Safrina

Metode : Jenis penelitian ini adalah pre experiment. Pendekatan penelitian ini dengan studi One Group Pre Test- Post Test yaitu penelitian yang memberikan tes awal (Pretest) sebelum diberikan perlakuan, setelah diberi perlakuan barulah memberikan test akhir (posttest). Penelitian dilakukan dari bulan Januari s/d April 2022 di PMB Dince Safrina Kota Pekanbaru. Sampel dalam penelitian ini berjumlah 15 orang. Teknik pengambilan sampel dalam penelitian ini teknik Non Probability Sampling berupa Purposive Sampling. Metode pengumpulan data dalam penelitian ini dengan observasi yaitu menilai intensitas nyeri ibu bersalin kala I sebelum dilakukan intervensi dan setelah dilakukan intervensi. Instrument pengumpulan data yang digunakan yaitu skala Numeric Rating Scale (NRS). Analisa data menggunakan SPSS dengan melakukan Analisa univariate dan Bivariate.

Hasil : hasil penelitian yang didapat adalah Rata-rata intensitas nyeri nyeri persalinan kala 1 fase aktif sebelum dilakukan Abdominal Lifting Massage adalah 4,8 (SD = 0,9), Rata-rata intensitas nyeri nyeri persalinan kala 1 fase aktif setelah dilakukan Abdominal Lifting Massage adalah 3,53 (SD = 0,9).

Simpulan : kesimpulan pada penelitian ini adalah Ada pengaruh Abdominal Lifting Massage terhadap intensitas nyeri persalinan kala I fase aktif di PMB Dince Kota Pekanbaru (ρ=0,000) artinya ρ < α (0,05)

Diharapkan bagi bidan di PMB Dince Safrina agar dapat menerapkan Abdominal Lifting Massage pada ibu bersalin sebagai tambahan alternatif untuk mengurangi rasa nyeri pada ibu bersalin kala I fase aktif, sehingga ibu dapat bersalin dengan aman dan nyaman.

Kata kunci: Abdominal Lifting Massage, Nyeri Persalinan, Kala I Fase Aktif

ABSTRACT

Background: Labor pain that occurs more frequently and lasts longer can cause mothers to be anxious, afraid and tense and even stressed which results in excessive release of hormones such as adrenaline, catecholamines and steroids (Sulistiawati & Ningrum, 2020). The majority of births (90%) are always accompanied by pain, while pain during labor is a common occurrence, pain during labor is a physiological and psychological process (Rejeki & Irawan, 2019). Reported labor pain figures show that on average in Indonesia 85-90% of pregnant women who are about to give birth experience severe labor pain and 7-15% are not accompanied by pain (Fitriawati et al., 2021).

Goal: GoalThis research is to determine the effect of abdominal lifting massage on the intensity of labor pain during the first active phase at PMB Dince Safrina.

Method: This type of research ispre experiment. This research approach is with studyOne Group Pre Test-Post Test namely research that provides an initial test (Pretest) before being given treatment, after being given treatment then gives a final test (posttest). The research was conducted from January to April 2022 at PMB Dince Safrina, Pekanbaru City. The sample in this study amounted to 15 people. The sampling technique in this research is technical Non Probability Sampling form Purposive Sampling. The data collection method in this study

was observation, namely assessing the pain intensity of mothers in the first stage of labor before the intervention and after the intervention. The data collection instrument used is a scaleNumeric Rating Scale (NRS). Data analysis using SPSS by carrying out univariate and bivariate analysis.

Results: The research results obtained were the average pain intensity of labor pain in the 1st stage of the active phase before it was carried outAbdominal Lifting Massage was 4.8 (SD = 0.9), the average pain intensity of labor pain during the 1st active phase afterAbdominal Lifting Massage was 3.53 (SD = 0.9).

Conclusion: the conclusion of this research is that there is an influenceAbdominal Lifting Massage on the intensity of labor pain during the first active phase in PMB Dince Pekanbaru City (ρ=0.000) meaning ρ < α (0.05)

It is hoped that midwives at PMB Dince Safrina can apply Abdominal Lifting Massage to mothers in labor as an additional alternative to reduce pain in mothers during the first active phase, so that mothers can give birth safely and comfortably.

Keywords:Abdominal Lifting Massage, Labor Pain, First Stage Active Phase

INTRODUCTION

Pain due to uterine contractions during labor is a normal thing, but pain can also cause anxiety and fatigue in the mother which will have a negative effect on the progress of labor and the well-being of the fetus. It can also become a pathology if it is felt continuously and excessively (Bellefonds, 2022). Labor pain begins to appear in the first stage of the latent phase and will continue to increase in intensity of pain in the first stage of the active phase. The pain that occurs can affect the mother's condition in the form of fatigue, fear, worry and cause stress. Stress can cause weakening of uterine contractions and result in prolonged labor and even death in the mother (Dartiwen, 2023) (Faradilah, 2014) . Excessive sympathetic activity, due to pain and stress, can exacerbate uncoordinated uterine contractions. Stress increases adrenaline, causing weak uterine contractions. As the cervix opens and thins, every mother in labor experiences increasing pain. Pain during labor can cause anxiety and fatigue in the mother, resulting in a negative influence on the progress of labor and the well-being of the fetus (Widiawati1, 2017) (MIF, 2024).

A safe delivery does not mean that the birth is without pain or illness. Because pain in labor is natural. It is destined that women can survive with this condition (Kramer, 2016). In general, women already understand that labor is almost always accompanied by pain, but they can't It is undeniable that only a few women are ready to face childbirth (Nurcahyati et al., 2020) (Liana, 2021). Labor pain that occurs more frequently and lasts longer can cause the mother to be anxious, afraid and tense and even stressed which results in the release of excessive hormones such as adrenaline, catecholamines and steroids. This hormone can cause smooth muscle tension and vasoconstriction of blood vessels which results in reduced blood and

oxygen flow to the uterus, which can cause uterine ischemia, fetal hypoxia and increase pain impulses. Increased catecholamines can cause disturbances in the strength of uterine contractions, resulting in uterine inertia which has an impact on prolonged labor (Sulistiawati & Ningrum, 2020) (Chambers-Goldberg, 2012). Labor pain that the pregnant woman is unable to adapt to can be dangerous and life-threatening for the pregnant woman and the fetus and can increase the metabolism of the mother's body which will have an impact on increasing blood pressure, pulse rate, respiratory rhythm and increasing temperature which affects the gastrointensinal, urinary and respiratory systems (Fitriawati et al., 2021) (ACOG, 2020).

There are two ways to reduce pain, namely pharmacological methods and non-pharmacological methods (Mayoclinic, 2023). Non-pharmacological methods that can be used to reduce pain are relaxation techniques, imagery and visualization, breathing techniques, effeurage, counterpressure, deep back massage, touch and massage, hot and cold acupressure applications, aromatherapy, abdominal lifting, biofeedback, hydrotherapy, waterbirth, hypnosis , hypnobirthing (Sri Mainansi & Ika Putri Damayanti, 2022) (Febriyanti et al., 2021). The Abdominal Lifting technique is an alternative choice to reduce the feeling of first stage labor because it has become a habit for mothers who are about to give birth, or in other words, Abdominal Lifting is "kusuk" or in Indonesian it is massage/kneading. So there is no clear rejection if a midwife does a massage or teaches the family to do a massage (Livana et al., 2017) (Crompton, 2020). Abdominal lifting is a stroke that is done in the opposite direction to the top of the abdomen without any pressure on the inside and is done repeatedly, in a supine position and the head is slightly elevated. By paying attention to the condition of the mother in labor, this technique can

be applied in the physiological first stage to reduce the intensity of pain (Wati, 2022).

RESEARCH METHODS

This type of research ispre experiment. This research approach is with studyOne Group Pre Test- Post Test namely research that provides an initial test (Pretest) before being given treatment, after being given treatment then gives a final test (posttest). The research was conducted from January to April 2022 at PMB Dince Safrina, Pekanbaru City. The sample in this study amounted to 15 people. The sampling technique in this research is technicalNon Probability Sampling formPurposive Sampling namely selecting samples based on specific criteria applied by researchers such as: all pregnant women with term pregnancies, mothers giving birth during the first active phase starting from opening 4, mothers able to communicate verbally and non-verbally. The data collection method in this study was observation, namely assessing the pain intensity of mothers in the first stage of labor before the intervention and after the intervention. Data collection begins with the researcher passing the ethical review/etical clearence from KEPK Poltekkes Kemenkes Riau

with Number LB.02.03/6/08/2022, then the researcher explained the objectives and procedures of the research to be carried out and filled in theinform consent to patients who were willing to act as respondents, then researchers measured the intensity of pain before doing soAbdominal Lifting Massage. Next is doneAbdominal Lifting Massage Every time a mother gives birth she experiences contractions for 20 minutes. After 20 minutes of treatment, the intensity of the mother's pain was measured againAbdominal Lifting Massage. Then the difference in pain intensity reduction scores from the treatment given was assessed. The data collection instrument used is a scaleNumeric Rating Scale (NRS). Next, carry out an analysis of the influenceAbdominal Lifting Massage on the intensity of labor pain during the first active phase, data analysis using SPSS by carrying out univariate and bivariate analysis.

RESEARCH RESULTS

Based on research conducted from January to April 2022 at PMB Dince Safrina, Pekanbaru City regarding the influenceAbdominal Lifting Massage on labor pain during the 1st active phase using 15 respondents, the following results were obtained:

Table 1
PtomorrowAbdominal Lifting Massage on the intensity of labor pain Phase I active phase at PMB Dince Pekanbaru City

Group	N	Mean	SD	Mix-Max	Wilcoxon	p-value
Pre test	15	4.8	0.9	3-6	-3.578	0.000
Posttest		3.53	0.9	2-5		

In table 1 it can be seen that the average intensity of labor pain in the active phase before it is carried outAbdominal Lifting Massage was 4.8 (SD = 0.9) with a minimum pain score of 3 and a maximum of 6. After carrying outAbdominal Lifting Massage was 3.53 (SD = 0.9) with a minimum pain score of 2 and a maximum of 5. The statistical test used was the Wilcoxon test with a confidence level of 95%. From this test it was obtainedp-value namely 0.000, this shows that there is an influenceAbdominal Lifting Massage on the intensity of labor pain during the first active phase in PMB Dince, Pekanbaru City.

DISCUSSIONS

Abdominal lifting is a technique for reducing pain during labor (NHS, 2023). The abdominal lifting technique is carried out in the latent phase when contractions last 40-50 seconds. The mother feels pain in the first stage or during contractions, in this

condition there is visceral pain and feels like a feeling of mucus coming from the uterus and cervix. Pain is caused by stretching of the uterus and dilatation of the cervix. Pain can be felt in the abdominal wall. Lumbosacral area, iliac crest, buttocks and thighs. During the first active period, the sensation of pain is felt very, very strongly. The sensation makes the mother's expression look helpless, the mother's ability to hear and concentrate also decreases (Sri Mainansi & Ika Putri Damayanti, 2022). The abdominal lifting technique is carried out by applying opposite strokes towards the top of the stomach without pressing towards it. This can stimulate large nerve fibers to increase the mechanism of activity of the substantia gelatinosa which results in the closing of the mechanism door so that T cell activity is inhibited and causes the delivery of stimuli to be hampered and pain will not be transmitted to the cerebral cortex (Rahmawati & Ningsih, 2019)

(Dahlas, 2019).

Based on research that researchers have conducted, there is a decrease in pain intensity before it is carried outAbdominal Lifting Massage was 4.8 (SD = 0.9) with a minimum pain score of 3 and a maximum of 6 and after completionAbdominal Lifting Massage was 3.53 (SD = 0.9) with a minimum pain score of 2 and a maximum of 5. This is in accordance with research (Liana, 2021) that there is a difference in pain scale before and after performing the Abdominal Lifting Technique. The Z value is -4.362 and the p value is 0.000. In contrast to research conducted by (Rahmawati & Ningsih, 2019), data showed that there was no difference in labor pain scores during the first active phase before and after being given the Abdominal Lifting technique.

After carrying out the abdominal lifting massage, the pain intensity scores of all respondents decreased, although there was not a drastic decrease for some. Mothers who receive a massage for twenty minutes every hour during contractions in labor will be more pain-free. This is because massage stimulates the body to release endorphins which function as pain relievers and create a feeling of comfort. This gentle massage helps the mother feel fresher, more relaxed and comfortable during labor (Djuaeriah et al., 2022) (Victoria, 2023) (Miller, 2024).

Good cooperation between midwives and respondents has a big influence on the success of the abdominal lifting technique process. The process of building mutual trust between midwives and respondents is carried out in the pre-induction phase. The success of the second stage, namely induction, is largely determined by pre-induction, if the midwife cannot bring the respondent in a comfortable and calm position, then the effect of the massage will not be optimal. In this study, the process of reducing the pain score which was not very significant could be caused by respondents who could not be invited to cooperate because the pain and anxiety they felt were increasing, thus affecting the mother's attention to carrying out abdominal lifting (Djuaeriah et al., 2022) (Rahmawati & Ningsih, 2019).

There are various anatomical and physiological changes that occur during pregnancy. Uterus increases from prepregnant size of 5 by 10 cm to 25 by 36 cm; it increases 5 to 6 times in size. By the end of pregnancy, each muscle cell in the uterus increases approximately 10 times over its pre-pregnancy length. Once uterus expands upward and leaves the pelvis, it becomes an abdominal organ rather than the pelvic organ. In Connective tissue, ligaments connected to the pelvic organs are more fibroelastic than ligaments supporting to joint structures (Ramesh Khandale et al., 2016) (Rise et al., 2019). The effectiveness of abdominal exercises, whether for aesthetic purposes or for rehabilitation should be done with a good technique of execution, so that the activity does not become inefficient or that can intensify or produce pain in the region of the spine. Another determining factor for exercise efficiency is their choice, the abdominal exercises cause a relative overload to the spine and its prescription depends on factors such as on a number of variables such as fitness level, Training goals, history of previous spinal injury, and any other specific factors to the individual, however an exercise that generates little overload in the column is the horizontal side support, because it activates very well the obliqua muscles and it generates little overload in the spine, besides working The in quadratus lomborum, a great stabilizer of the trunk. For the increase of the stabilization of the trunk it is necessary that exercises are done of strengthening for the musculature of the abdomen (Serpa et al., 2017) (Mater, 2024) (Coenen et al., 2017).

CONCLUSION

Based on research from March to April regarding the effect of Abdominal Lifting Massage on labor pain during the 1st active phase at PMB Dince Safrina, Pekanbaru City in 2022, it can be concluded that: The average pain intensity of labor pain in the 1st active phase before the Abdominal Lifting Massage was 4.8 (SD = 0.9), The average pain intensity of labor pain in the 1st active phase after the Abdominal Lifting Massage was 3.53 (SD = 0.9), There is an influence of Abdominal Lifting Massage on the intensity of labor pain during the first active phase in PMB Dince Pekanbaru City (ρ=0.000) meaning $\rho < \alpha$ (0.05)

SUGGESTIONS

It is hoped that midwives at PMB Dince Safrina can apply Abdominal Lifting Massage to mothers in labor as an additional alternative to reduce pain in mothers during the first active phase, so that mothers can give birth safely and comfortably.

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THE EFFECT OF ANEMIA EDUCATION VIDEOS ON COMPLIANCE TAKE BLOOD BOOSTER TABLETS

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ABSTRAK

Latar Belakang: Proporsi remaja putri yang mendapat tablet tambah darah dalam 12 bulan terakhir sebesar 76,2%, namun hanya 1,4% remaja putri yang mengonsumsi tablet tambah darah sesuai anjuran. Cakupan pemberian Tablet tambah darah bagi remaja putri di Kalimantan Utara tahun 2022 sebesar 54,2% termasuk Kabupaten Tana Tidung. Upaya yang dapat dilakukan yaitu memberikan informasi tentang pentingnya pencegahan anemia serta konsumsi tablet tambah darah secara rutin. Salah satu media pemberian informasi yang menarik adalah video.

Tujuan: Teranalisanya pengaruh video edukasi terhadap kepatuhan minum tablet tambah darah di SMPN 6 Tana Tidung.

Metode: Penelitian kuantitatif dengan metode pre eskperimental design One group pretest and posttest. Populasi remaja putri SMPN 6 Tana Tidung. Sampel 143 remaja. Analisa data menggunakan Uji Wilcoxon.

Hasil: skor mean kepatuhan remaja sebelum intervensi 1,15, median 1,00, SD 0,393 dan 95%CI antara 1,08-1,21. Setelah diberikan video edukasi, terjadi pengurangan dikategori tidak patuh dan terjadi peningkatan di kategori patuh dengan mean 1,32 dengan nilai median 1,00, SD sebesar 0,525 serta 95%CI antara 1,08-1,21. Hasil uji statisik didapatkan nilai p value = 0,000 (p value < 0,05). Uji Wilcoxon diperoleh nilai p-value 0.000.

Kesimpulan: ada pengaruh video edukasi terhadap kepatuhan minum tablet tambah darah pada remaja putri di SMPN 6 Tana Tidung. Pengaruh video edukasi terhadap kepatuhan minum tablet tambah darah akan lebih baik bila disertai rutin konsumsi tablet tambah darah 1 kali setiap minggu disekolah dan dirumah.

Kata Kunci : Anemia, remaja putri, tablet tambah darah, video edukasi

ABSTRACT

Background: The proportion of adolescent girls who received blood-boosting tablets in the last 12 months was 76.2%, but only 1.4% of adolescent girls took blood-boosting tablets as recommended. The coverage of giving blood booster tablets for adolescent girls in North Kalimantan in 2022 is 54.2%, including Tana Tidung Regency. Efforts that can be made are to provide information about the importance of preventing anemia and consuming blood supplement tablets regularly. One of the interesting information media is video.

Purpose: To analyze the effect of educational videos on the adherence to taking blood supplement tablets at SMPN 6 Tana Tidung.

Methods: Quantitative research with pre-experimental design method One group pretest and posttest. The population of adolescent girls at SMPN 6 Tana Tidung. A sample of 143 adolescents. Data analysis using the Wilcoxon Test.

Results: adolescent median adherence score before the intervention 1.15, median 1.00, SD 0.393 and 95%CI between 1.08-1.21. After being given educational videos, there was a reduction in the non-compliant category and an increase in the compliant category with a mean of 1.32 with a median value of 1.00, elementary school of 0.525 and a 95%CI between 1.08-1.21. The results of the statistical test obtained a p value = 0.000 (p value < 0.05). The Wilcoxon test obtained a p-value of 0.000.

Conclusion: there is an effect of educational videos on adherence to taking blood supplement tablets in adolescent girls at SMPN 6 Tana Tidung. The effect of educational videos on the adherence to taking blood supplement tablets will be better if accompanied by regular consumption of blood supplement tablets 1 time per week at school and at home.

Keywords: Anemia, adolescent women, blood supplement tablets, educational videos

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INTRODUCTION

Adolescence is an individual development that starts from the age of 10 to 19 years and is characterized by the emergence of secondary sexual characteristics until sexual maturity is reached (WHO, 2022). According to Wirenviona & Riris (2020) in their book, adolescence is a period of growth towards maturity. The maturity in question is not only in the form of physical, social and psychological maturity but is accompanied by changes in several things including knowledge, feelings, social and moral. Complex changes will occur during this period so it requires good preparation from the teenager himself.

A productive, healthy and quality generation needs attention from an early age. In order for this to be realized, there are still many things that need to be considered, one of which is nutritional issues. One of the health problems of adolescents due to iron deficiency is anemia, which can interfere with growth and reduce the quality of the population. Growth-related anemia often occurs in adolescents who experience significant spikes in physical growth during puberty. Anemia is a condition in which the number of red blood cells in the human body decreases or the number of red blood cells in the body is below the normal limit. This may occur due to a lack of hemoglobin in the body, which affects the production of red blood cells (Ministry of Health of the Republic of Indonesia, 2023). Low hemoglobin levels due to a lack of iron in the blood cannot support the work of the blood in delivering oxygen to all tissues and result in impaired growth and development and can damage brain cells or tissues, so that the physical working capacity and body temperature regulation are not optimal (Durrani, 2018).

Some of the effects of anemia on adolescent girls are quite concerning. Data from the 2018 Basic Health Research (Riskesdas) stated that 70.1% of adolescent girls aged 10-19 years have experienced menstruation and as many as 29.9% have not had menstruation. During adolescence, iron requirements will increase dramatically as a result of the total expansion of blood volume, increased body fat mass and the occurrence of menstruation. The direct impact of anemia on adolescent girls includes fatigue, memory impairment, declining academics, susceptibility to infections, and reduced physical ability. The long-term effects of anemia in adolescent girls are increasing the risk of maternal death during childbirth, giving birth to premature babies and low birth weight/BBLR (Nurhayati & Titik Susilowati, 2022). The increase in iron needs in adolescent

girls peaks at the age of 14-15 years. At this time, adolescent girls begin to experience menstruation after 1 year of peak growth. This causes the need for iron to increase due to the loss of iron during menstruation. Iron loss due to menstruation is 12.5-15mg/month (Fikawati, 2017).

WHO estimates that worldwide 40% (children aged 6 to 59 months), 37% (pregnant women) and 30% (women aged 15 to 49 years) experience anemia (WHO, 2023). Anemia is also one of the major public health problems in India, affecting almost 90% of poor children, young women, and adult women and is considered a "women's disease" in India (Ayurveda, 2021). In Riskesdas in 2013, the prevalence of anemia in 15-24 years old was 18.4% and increased by 32% in 2018. The prevalence of anemia, which is usually a major health problem in adolescent girls, is ≥40.0 while the average value is 20.0-39.9%. According to Riskesdas data in 2018, the prevalence of anemia in adolescents in Indonesia is 32%, meaning that 3 to 4 out of 10 adolescents experience anemia. This shows that the number of adolescent girls who take iron tablets weekly ≥52 tablets with a presentation is only 1.4%, while 98.6% of adolescent girls take <52 tablets of blood supplement tablets/year. Adherence to taking blood-boosting tablets in adolescent girls is currently still low. The proportion of adolescent girls who have received blood-boosting tablets in the last 12 months is 76.2%, but only 1.4% of adolescent girls have taken blood-boosting tablets as recommended (Ministry of Health of the Republic of Indonesia, 2022).

The coverage of giving blood booster tablets for adolescent girls in North Kalimantan in 2022 is 54.2%, including Tana Tidung Regency (Dinkes Summit, 2022). This is inversely proportional to the results of the prevalence of stunting rates in North Kalimantan based on the 2022 SSGI where Tana Tidung Regency ranks first with a figure of 30.7%. According to the Chairman of the Indonesian Nutritionist Association (Persagi), Agust Suwandy in the Kaltara Newspaper (2022), the factor causing stunting, especially in North Kalimantan, is the lack of public knowledge about nutrition. Therefore, since adolescence, every woman should not suffer from anemia, malnutrition and chronic lack of energy. By preparing from an early age for adolescent girls, the program of giving blood booster tablets to adolescents to prevent anemia should be carried out regularly.

The local government of Tana Tidung Regency has carried out stunting-specific interventions in reducing the increase in stunting rates by screening for anemia and providing blood

supplement tablets to adolescent girls. It is hoped that by giving blood supplement tablets to adolescent girls, it can prevent anemia and help mothers-to-be give birth to healthy and stunting-free babies. One of the schools that received attention from the Tana Tidung local government was SMPN 6. SMPN 6 Tana Tidung has 531 students with a total of 222 female students. Screening results carried out The Tideng Pale Health Center in August 2022 in class VI found 21 students with anemia. During the screening, health workers conducted interviews about anemia and blood supplement tablets. It is known from some respondents that they do not know the importance of taking blood supplement tablets because of the lack of information they receive and non-compliance in consuming blood supplement tablets.

Quraini et al (2020) in their journal entitled "Compliance Behavior of Adolescent Girls in Jember, Indonesia" from 328 respondents (junior high school students in Jember), 187 respondents (57%) had the intention to obey taking Blood Supplement Tablets regularly with strong behavioral control (52.7%). Behavioral control was obtained from personal experience related to compliance with the consumption of blood supplement tablets, as well as other behavior-related information obtained from the experiences of people they know, friends, and other factors that increase the understanding of regular consumption of blood supplement tablets. There is a relationship between behavior control and obedient intentions in taking blood supplement tablets regularly. In a journal review entitled "The Effectiveness of Providing Interesting and Innovative Nutrition Education Media for the Prevention of Anemia to Adolescent Women: A Literature Review" conducted by Az-zahra & Kurniasari (2022), nutrition education was also carried out with interesting animated materials. It is known that from the 5 journals studied, the knowledge of respondents after the intervention increased to 7.9 points with an average score from 69.88 to 77.70. The provision of educational materials through audiovisual media turns out to add its own attraction in conveying information. This shows that the use of animation media is a more effective way to provide education compared to educational media using print media.

Given the high incidence of anemia in Indonesia, especially in adolescent girls and the high prevalence of stunting in Tana Tidung Regency due to the lack of socialization or health education, it is necessary to make promotive and preventive efforts. Efforts that can be made include providing complete information about the importance of anemia, how to prevent it, and efforts to prevent it through regular consumption of blood supplement tablets. Providing anemia education with attractive media can make it easier for young women to understand. Choosing the right media also helps motivate young women to learn. One of the interesting learning media for young women to learn balanced diet guidelines is videos. Video is an audiovisual media that successfully arouses interest and a sense of independence so that it allows adolescents to actively participate in the learning process (Sutrio & Yunianto, 2021). Therefore, the author is interested in analyzing the influence of health education media through videos on adolescent girls' compliance in consuming blood supplement tablets at SMPN 6 Tana Tidung.

RESEARCH METHODS

The type of quantitative research with the Pre-experimental design research method is in the form of One group pretest and posttest. The population of young girls at SMPN 6 Tana Tidung is 222 people. The sample used 143 respondents with the Proportionate Stratified Random Sampling technique. The research was conducted at SMPN 6 TANA TIDUNG November to December 2023. The instrument used the MMAS-8 Questionnaire. Univariate and bivariate data analysis (t-test).

RESEARCH RESULTS
Univariate Analysis

Table 1 shows the number of respondents as many as 143 SMPN 6 students or adolescent girls, most of whom are from grade 7 with an age range of 11-13 years (55.2%), with moderate anemia status before receiving the intervention (49%) and after being given the intervention, there was a change in the anemia status of the most respondents from moderate anemia to non-anemia (42%).

Table 2 shows that adolescent girls' compliance in consuming blood-boosting tablets before being given the intervention in the form of educational videos shows that the mean score of adolescent girls' compliance in taking blood-boosting tablets before the intervention is 1.15 with a median value of 1.00, a standard deviation value of 0.393 and a 95%CI between 1.08-1.21.

Table 3 shows that the mean score of adolescent girls taking blood-boosting tablets before the intervention is 1.32 with a median value of 1.00, a standard deviation value of 0.525 and a 95%CI between 1.08-1.21.

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Table 1
Characteristics of adolescent girls at SMPN 6 Tana Tidung

Categories	Frequency	Presentase (%)
Class		
7	78	54,2
8	29	20,3
9	36	25,2
Age Range		
11-13 years	79	55,2
14-15 years	28	19,6
16-17 years	36	25,2
Anemia Status Pre test		
12-14 gr/dL	47	32,9
11.0-11.9 gr/dL	26	18,2
8.0-10.9 gr/dL	70	49
< 8 gr/dL	0	0
Anemia Status Post test		
12-14 gr/dL	60	42
11.0-11.9 gr/dL	35	24,5
8.0-10.9 gr/dL	48	33,6
< 8 gr/dL	0	0

Table 2
Adolescent women's compliance in consuming blood-boosting tablets
before being given video education media

Variabel	Mean	Median	SD	Min-Max	95% CI
Pretest	1,15	1,00	0,393	1-3	1,08-1,21

Table 3
Adolescent girls' compliance in consuming blood-boosting tablets after being given video education
media

Variabel	Mean	Median	SD	Min-Max	95% CI
Posttest	1,32	1,00	0,525	1-3	1,23-1,41

Bivariate Analysis

Based on table 4, the results of the normality test of adolescent adolescent adherence level pre test and post test show a result of 0.000 so that the p value ≤ 0.05, so it is concluded that the data is abnormally distributed, so in this study, the researcher uses the Wilcoxon sign rank test.

Based on table 5, it is known that out of 143 respondents, there are 26 respondents who show an increase in compliance level and 116 respondents whose scores are the same between pre-test and post-test. The results of the analysis used the Wilcoxon sign rank test because the data was abnormally distributed and a p-value of 0.000 was obtained. Because the sig value is 0.000 < 0.05, it can be said that there is a difference in compliance between pre-test and post-test. So it can be said that providing education to adolescent girls with video media is influential in increasing adolescent girls' compliance in consuming blood-boosting tablets (TTD).

Table 4
Compliance level normality test results

Variabel	Kolmorov-Smirnov		
	Statistic	**N**	**Sig.**
Compliance level pre test	,513	143	,000
Compliance level post test	,436	143	,000

Table 5
Results of Analysis of the Influence of Video Educational Media Using the Wilcoxon Sign Rank Test on Adolescent Girls' Compliance in Consuming Blood Supplement Tablets

Variabel		N	Mean	p value
Compliance level pre test	Negatif Rank	1	14,00	
Compliance level post test	Positif Rank	26	14,00	.000
	Tetap	116		

DISCUSSIONS
Characteristics of young girls at SMPN 6 Tana Tidung

The respondents in this study were adolescent girls who were students at SMPN 6 Tana Tidung grades 7 to 9 with an age range from 11-13 years to 16-17 years with the distribution of respondents in each class which has been presented in Table 4.1 The most respondents came from grade 7 totaling 78 adolescent girls with an age range of 11-13 years (55.2%), With the adherence of taking blood supplement tablets before receiving the intervention, the low compliance category was dominated by 124 respondents (86.7%) with mild anemia status before receiving the intervention (49%).

The results of this study obtained adolescent girls before receiving health education through video, there were 70 respondents (49%) who experienced severe anemia. It showed that most of the respondents did not take blood supplement tablets (TTD) per week when they were not menstruating and did not consume blood supplement tablets (TTD) per day during menstruation. This is in line with the research of Rahayuningtyas et al (2021) where adolescents have a strong desire to be accepted and liked by their peers so that there is habit imitation, namely 49.9% of respondents will follow their peers if their friends do not take blood supplement tablets (TTD). The results of Amir & Djokosujono's (2019) research show that many factors affect the consumption of blood supplement tablets (TTD) in adolescent girls in Indonesia, namely teacher support (p=0.000), attitude (p=0.031), culture (p=0.012), family support (p=0.029), perceived threat (p=0.02), perceived benefit (p=0.01), perceived barrier (p=0.02), and self efficacy (p=0.00). The blood supplement tablet (TTD) program for adolescent girls is an Indonesian

government program in an effort to prevent anemia and overcome stunting. These programs include taking blood supplement tablets (TTD) regularly, one tablet every week when not menstruating, and taking blood supplement tablets (TTD) per day during menstruation. This is so that adolescents do not get anemia and remain healthy (Ministry of Health of the Republic of Indonesia, 2018).

Research conducted by Pramardika and Fitriana (2019) in (Widiastuti & Rusmini, 2019a) the results of a bivariate analysis between the variables of adherence to taking blood-boosting tablets and the incidence of anemia were obtained that there was a unidirectional relationship between the two variables, meaning that the more adolescent girls were obedient in consuming blood-boosting tablets, the higher the Hb levels of adolescent girls would increase. It was also shown that the program of giving blood supplement tablets carried out by the health center went quite well based on the results of measuring Hb levels where 71.1% of the total 45 respondents had an Hb ≥ 12 gr/dl. The role of health center officers and the role of UKS teachers in providing counseling about TTD affects compliance.

Adolescent women's compliance in consuming blood supplement tablets before being given video education media

Based on the results of the study, it was known that the mean score of adolescent girls' compliance with taking blood-boosting tablets before the intervention was 1.15 with a median value of 1.00, a standard deviation value of 0.393 and a 95%CI between 1.08-1.21. Adolescent girls have a high level of adherence if the total MMAS score is >8 (2), moderate adherence is 6-7 (17), and adherence is low 0-5 (124). Of the eight statements contained in the MMAS-8 questionnaire, the most

respondents answered "yes" only to statements number 3 and 5. In this study, the median score was 0.00 so that the level of adolescent girls' compliance with consuming blood supplement tablets before being given anemia education videos was declared low.

According to Susanti (2016) in Putra (2020), the factor that affects compliance is the knowledge of the respondents. Knowledge is one of the predisposing factors that can influence an individual's behavior to take blood supplement tablets, because knowledge is the dominant factor for the formation of a person's actions. Knowledge is all information that a person receives from outside himself and is accompanied by an understanding of the information obtained (Susanti, 2016). This research is supported by Quraini (2020) who explains the characteristics of adolescents at the age of 11-16 years who tend to believe more in what is in their minds, not willing to accept an opinion without a reasonable reason. The adolescent girls have been able to plan for adherence or non-adherence to taking the blood supplement tablets regularly once a week throughout the year correctly and have been able to consider the consequences of such behavior. In this study, respondents received the distribution of blood supplement tablets for 2 consecutive weeks (1 tablet per week) after an examination of the anemia status of each adolescent girl before the intervention was carried out to play educational videos about anemia and blood supplement tablets.

Research conducted by Pramardika and Fitriana (2019) the results of a bivariate analysis between the variables of adherence to taking blood-boosting tablets and the incidence of anemia were obtained that the relationship was unidirectional between the two variables, which means that the more adolescent girls obey in consuming blood-boosting tablets, the Hb levels of adolescent girls will increase. It was also shown that the TTD program carried out by the health center was running quite well based on the results of measuring Hb levels where 71.1% of the total 45 respondents had an Hb ≥ of 12 gr/dl. The role of health center officers and the role of UKS teachers in providing counseling on blood supplement tablets affects compliance.

The level of knowledge of adolescents can be influenced by the information obtained, the less information received, the smaller the level of knowledge a person has. Video is a media that uses audio and visuals which are intermediaries about the material so as to build conditions that make teenagers able to acquire knowledge and skills.

Media in health education has the benefit of clarifying the material presented, overcoming the limitations of space, time and sensory power, and overcoming passive attitudes. The material with videos is packaged in the form of interesting image effects and sounds so that it provides a more real picture, so that the level of knowledge of teenagers can increase. This is also in accordance with the theory that learning videos are a medium for transferring knowledge and can be used as part of the learning process. More interactive and more specific than a book or lecture, tutorials seek to teach with examples and provide information to complete a specific task (Suzana & Jayanto, 2021).

Based on this description, the researcher assumes that the compliance of adolescent girls to take blood supplement tablets at SMPN 6 Tana Tidung before being given anemia education through video media is at a low compliance level because there is no anemia education provided and the role of UKS in monitoring the adherence of taking blood supplement tablets in adolescent girls at school has not been active.

Adolescent women's compliance in consuming blood supplement tablets after being given video education media

Based on the results of the study after being given video education, it was known that the mean value of adolescent girls' compliance with taking blood supplement tablets before being given the intervention was 1.32 with a median value of 1.00, a standard deviation value of 0.525 and a 95%CI between 1.08-1.21. The compliance level is said to be high compliance if the total MMAS score is >8 (4), moderate compliance is 6-7 (38), and compliance is low 0-5 (101). In this study, the median score was 1.00, so that adolescent girls' compliance with taking blood supplement tablets after being given educational media using videos was quite good. This indicates that there is a change The level of compliance goes from low compliance to medium compliance and high compliance.

In educational activities on the prevention of anemia and compliance with the consumption of blood supplement tablets, there was an increase in knowledge among adolescent girls about anemia and changes in attitudes related to compliance with taking blood supplement tablets. After being given health education using video media, the anemia status of adolescent girls at SMPN 6 Tana Tidung increased from adolescent girls with moderate anemia to non-anemia of 60 respondents (42%). This is in accordance with the research of Balqis

(2022) which states that with the increase in adolescent girls' knowledge about anemia, there will be a change in adolescent girls' attitudes towards anemia prevention efforts, and there will be a change in adolescent girls' intentions towards anemia prevention after being given education through videos so as to change the attitudes and behaviors of adolescent girls regarding anemia status. With the increasing knowledge of adolescent girls about anemia and blood supplement tablets, it helps young women know the importance of consuming blood supplement tablets in preventing anemia.

Quraini et al (2020) in their study said that the increase in adherence to taking blood supplement tablets was influenced by family support (p value 0.000; OR 0.237; CI 95% 0.20-2.647) and support for teachers and health workers (p value 0.000; 0.938; 95% CI 0.088-11.777). In its development, there are obedient students and there are students who are less compliant in consuming blood supplement tablets. For schools in the region, the consumption of blood supplement tablets 100% of respondents spent the blood supplement tablets that had been received. Meanwhile, for students in urban areas, students who use tablets increase blood by less than 50% (Widiastuti, 2019). There is a need for regular counseling from health workers and monitoring cards can increase adolescent girls' compliance in consuming blood supplement tablets. Where the school determines the day for the consumption of blood supplement tablets at the same time in order to monitor the progress of students in consuming blood supplement tablets.

Based on this description, the researcher assumes that the compliance of adolescent girls to take blood supplement tablets at SMPN 6 Tana Tidung after being given anemia education through video media is at a fairly good level due to changes in anemia status and the level of adolescent adolescent adolescent compliance after the anemia education provided.

The effect of video education media on adolescent girls' compliance in consuming blood supplement tablets before and after education

The results of the analysis test using the Wilcoxon Test showed a Sig value of 0.000 (P value < 0.05) so that it can be concluded that H0 was rejected and Ha was accepted, meaning that there is an influence of health education with video on adolescent girls' compliance in taking blood supplement tablets.

Rohyani's research (2021) showed that in the video group after counseling, 6 samples (20.0%) who complied with the consumption of these blood-boosting tablets showed a significant increase in knowledge before and after counseling using video media on young girls at SMA Negeri 3 Kendari. Adolescent girls' compliance with taking blood booster tablets after being given health education with video media has increased. Apriliana et al (2023) conducted a study with a p-value of 0.000 with the results of the pre-test the majority of respondents had less compliance of 90% and the post-test showed that the majority of respondents had good compliance of 48.6%. This means that there is an effect of educational videos on the compliance of the consumption of blood supplement tablets in adolescent girls at SMAN 1 Andong.

Masnar (2020) in Apriliana et al (2023) said that video media is an effective tool to increase understanding and compliance because based on theory, information will be better and clearer if it affects various senses that humans have, such as hearing and sight. Video media is also easier to create and convey and is able to involve various domains such as cognitive, affective, motor, and interpersonal. In addition, the video also attracts attention and motivates the viewers. Video media is also very easy to access, health education packaging using videos is expected to increase awareness.

According to Yudianto, (2017) The influence of video media will enter humans faster than other media. Because the broadcast is in the form of focal point light, so it can affect human thoughts and emotions. In teaching and learning activities, focusing and influencing students' emotions and psychology is very necessary. Because with this students will find it easier to understand the lesson. Of course, the video media delivered to students must be related to the purpose of learning.

Adolescent girls' compliance increased when they were given health education with videos. Video media can provide the attraction of respondents because it presents information in the form of images, writing, and sounds that can be played repeatedly to be understood so that it is easier to get information. The more information obtained, the more it will affect a person's compliance.

CONCLUSIONS

There is an influence of video educational media about anemia and blood supplement tablets on adolescent girls' compliance with taking blood supplement tablets at SMPN 6 Tana Tidung

SUGGESTIONS

Anemia Education Videos Can Be Used As A Means To Increase Adolescent Adherence In Consuming Blood-Boosting Tablets

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THE EFFECT OF DEEP BACK MASSAGE AND WARM COMPRESSES ON LABOR PAIN DURING ACTIVE PHASE I

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ABSTRAK : EFEK PIJAT PUNGGUNG DALAM DAN KOMPRES HANGAT TENTANG NYERI BURUH PADA TAHAP AKTIF I

Latar Belakang : Dari data survey study pendahuluan yang dilakukan wawancara singkat ditemukan 12 dari 15 ibu bersalin kala 1 fase aktif mengalami nyeri berat terkontrol dengan menggunakan skala ukur NRS (Numeric Rating Scale) diperoleh data bahwa 3 ibu bersalin mengalami nyeri sedang. ibu bersalin belum mengetahui adanya teknik dalam mengatasi rasa nyeri yang berlebihan dengan harapan dilakukannya penelitian ini dapat mengurangi tingkat rujukan akibat rasa nyeri yang tidak terkontrol. Nyeri pada ibu bersalin juga menyebabkan meningkatnya kadar katekolamin atau hormon stress seperti epinefrin dan kortisol. Peningkatan kadar katekolamin atau hormon stres dapat mengurangi kemampuan tubuh ibu untuk menahan rasa nyeri. Hormon yang produksinya meningkat karena persalinan diantaranya adalah hormon kortisol.

Tujuan : Penelitian ini untuk diketahui pengaruh deep back massage dan kompres hangat terhadap nyeri persalinan kala 1 fase aktif di RSUD Akhmad Berahim Kabupaten Tana Tidung.

Metode : Penelitian ini menggunakan desain Quasi eksperiment jenis pretest dan posttest. Menggunakan consecutive sampling Jumlah sampel adalah 30 responden yang terdiri dari 15 orang kelompok deep back massage dan 15 orang kelompok kompres hangat. Instrument penelitian ini menggunakan skala nyeri NRS (Numeric Rating Scale) dan SOP.

Hasil : Berdasarkan uji wilxocon sign rank menunjukkan nilai P value = 0.001< α (0.05), sehingga Ha diterima.

Kesimpulan : Ada pengaruh signifikan hasil pretest dan posttest terhadap nyeri persalinan kala 1 fase aktif. Saran: diharapkan dengan ada penelitian ini dapat dijadikan salah satu referensi metode non farmakologi untuk mengatasi nyeri persalinan

Kata Kunci: Deep Back Massage, Kompres Hangat, Nyeri Persalinan

ABSTRACT

Background: From the preliminary survey study data conducted by short interviews, it was found that 12 out of 15 mothers who gave birth during the 1st active phase experienced controlled severe pain using the NRS (Numeric Rating Scale) measurement scale, data was obtained that 3 mothers gave birth with moderate pain. Maternity mothers are not aware of any techniques for overcoming excessive pain in the hope that this study can reduce the referral rate due to uncontrolled pain. Pain in childbirth also causes increased levels of catecholamines or stress hormones such as epinephrine and cortisol. Increased levels of catecholamins or stress hormones can reduce the mother's body's ability to withstand pain. Hormones whose production increases due to childbirth include the hormone cortisol.

Purpose: This study was to determine the effect of deep back massage and warm compresses on labor pain during active phase 1 at Akhmad Berahim Hospital, Tana Tidung Regency.

Method: This study uses a Quasi experimental design of pretest and posttest types. Using consecutive sampling, the number of samples was 30 respondents consisting of 15 people in the deep back massage group and 15 people in the warm compress group. This research instrument uses the NRS (Numeric Rating Scale) pain scale and SOP.

Results: Based on the wilxocon sign rank test, it shows a P value = 0.001< α (0.05), so Ha is accepted.

Conclusion: There is a significant influence of pretest and posttest results on labor pain during active phase 1. Suggestion: it is hoped that this research can be used as a reference for non-pharmacological methods to overcome labor pain

Keywords: Deep Back Massage, Warm Compress, Labor Pain

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INTRODUCTION

Childbirth is a physiological thing that occurs at the end of pregnancy for all women in the world, in the process of childbirth begins with a contact that is getting stronger and stronger so that it causes the opening of the cervix (Rahmadyanti et al 2022). The World Health Organization (WHO) estimates that every year there are 210 million pregnancies worldwide, and 20 million women experience pain during childbirth (Kholisoh, Winarni, and Afiyanti 2022).

Pain in childbirth is a manifestation of contraction (shortening) of the uterine muscles, unresolved pain can cause breathing and the mother's heart rate will increase, causing blood flow from oxygen to the placenta to be disrupted (Kholisoh et al. 2022). The pain experienced during childbirth is new to every mother and can be influenced by several factors including culture, fear, anxiety, past childbirth experiences, background and support (Mardiana Ahmad et al. 2023).

Research conducted in the UK revealed that 93.5% of mothers who gave birth described labor pain as severe pain, while the same study was also conducted in Finland where 80% of women described pain as severe pain that could not be overcome or tolerated (Utari and Futriani 2022). According to the 2017 SDKI survey, the most common labor complications were anxiety or severe pain at 53.5% and prolonged labor at 40.6% (Hariyanti and Astuti 2021). If the pain is not managed properly, it can worsen the targeted Maternal Mortality Rate to drop to 70 per 100,000 live births by 2030 (Utari and Futriani 2022).

The treatment and supervision of labor pain, especially during the 1st active phase, is very important, because this is the determining point whether a mother can undergo normal labor or end it with an action due to complications caused by very severe pain (Nurulicha and Ashanti 2019). If not treated properly, it will cause other problems so that the production of the hormone adrenaline increases and results in vasoconstriction which causes the mother's blood flow to the fetus to decrease (Annisa, Idyawati, and Ulya 2019).

Unresolved labor pain can cause pregnant women to choose to give birth by sectio caesarean section (SC). This was revealed in the research of Rahman et al. (2017) that 35% of respondents chose sectio caesaria (SC) (Al 2020). Along with research conducted in the United States which revealed the fact that 70% to 80% of mothers want to give birth painlessly (Parapat and Tarigan 2022). Currently, 20% to 50% of hospital-delivered deliveries in underdeveloped countries are performed by caesarean section (SC) of mothers who prefer surgery to avoid excessive pain at the time of delivery. This ratio accounts for more than half of all hospital births in Brazil, the highest proportion in the world (Nature, 2020).

In North Kalimantan Province in 2021, the percentage of childbirth assisted by health workers reached 92.5%. In Tana Tidung Regency, one of the districts in North Kalimantan, as many as 84.98% of mothers who gave birth in January-December 2021 gave birth spontaneously vaginally and 21.85% of mothers who were referred due to childbirth complications that occurred and could not be treated.

Pain in childbirth also causes increased levels of catecholamines or stress hormones such as epinephrine and cortisol. Increased levels of catecholamins or stress hormones can reduce the mother's body's ability to withstand pain. Hormones whose production increases due to childbirth include the hormone cortisol. The experience of childbirth is influenced by the environment and the place where the delivery takes place.

There are various ways to reduce labor pain medically and non-medically. Medically used to reduce labor pain is commonly used in hospitals, including by administering analgesia drugs that are injected through intravenous infusions, through respiratory tract inhalation, or by blocking nerves that transmit pain (Al 2020). Non-pharmacological methods can also increase satisfaction during labor, as the mother can control her feelings and her strength. Relaxation, breathing techniques, movement and position changes, massage, hydrotherapy, pads/cold therapy, music, acupressure, aromatherapy are non-pharmacological techniques that can improve maternal comfort during childbirth and have an effect on effective coping on the childbirth experience (Nurulicha and Ashanti 2019).

In this study, researchers chose deep back massage and warm compresses to reduce pain because they have many advantages, one of which is relieving muscle tension so that it provides a sense of comfort. This deep back massage and warm compress method is a complementary therapy that is easy and safe to do without the need for special training. The administration of warm compresses has the principle of heat transmission through conduction where heat is applied to the back to improve blood circulation and reduce muscle tension so that in the hope that pain can be reduced, in addition, warm compresses are vasodilating which can increase the local temperature in the skin so that it can increase

circulation in tissues to reduce the process of muscle spasms and reduce pain (Soeparno 2020). Warm compresses using hot bottles, filled with water at a temperature of 46-51°C, wrapped in a cloth attached to the back are carried out three times with an interval of one hour during the active phase 1 of labor. According to Prapat and Tarigan in their study, after being given warm compresses, the average respondent experienced a decrease in the labor pain scale, which was 3.41 points to the decrease in the pain scale in active phase I labor.

Deep back massage is excellent and is a gentle way to help mothers give birth. The touch and gentleness of the massage in the sacrum area makes the mother of childbirth more relaxed. Pressing the back with the force concentrated on the base of the arm. Three cycles are carried out in childbirth during the 1st active phase. A study showed that women who received massage during the labor phase felt calmer and more pain-free. This happens because massage can stimulate the body to release endorphine compounds which are natural pain relievers. The results of a similar study were conducted in pregnant women during the first active phase were obtained before Deep Back Massage by 37.5% in controlled severe pain and labor pain after Deep Back Massage by 50% in moderate pain.

From preliminary survey study data conducted at Akhmad Berahim Hospital in May 2023, conducting a short interview, it was found that 12 out of 15 mothers who gave birth during the 1st active phase experienced controlled severe pain using the NRS (Numeric Rating Scale) measurement scale. Data on the number of deliveries in the last 6 months is 179 normal deliveries with an average number of 36 deliveries per month. The reason for the selection of the location of this study is that only the Akhmad Berahim Hospital has a delivery room in Tana Tidung Regency, while there are 2 sub-district health centers that serve childbirth but are difficult to reach by researchers. At the Akhmad Berahim Hospital itself, maternity mothers do not know of any techniques in overcoming excessive pain in the hope that this study can reduce the referral rate due to uncontrolled pain. Based on this background, the author is interested in researching the Effect of Deep Back Massage and Warm Compresses on Childbirth Pain in the First Active Phase at Akhmad Berahim Hospital, Tana Tidung Regency.

RESEARCH METHODS

Quantitative research with Quasy-experimental through a two-group pretest and posttest design approach. The population of pregnant women in the first phase of active childbirth with normal delivery was 253 patients. The sample used 30 respondents using the Consecutive sampling technique with inclusion criteria: Respondents were already in the inpartu during the 1st active phase of the opening of 4-7 cm. Respondents did not experience skin disorders of other comorbidities in the sacrum area. Respondents were not on analgesic therapy. Cooperative respondents (can work together). Pregnant women who do not get drugs or other herbs that have the effect of increasing uterine contractions. The mother's skin is not allergic to heat. Exclusion criteria: The mother gave birth with an unstable condition (increased blood pressure, irregular fetal heartbeat). Pregnant women with high risk or pathologies (pre-eclampsia, placental abruption, placenta previa, anemia, suffering from heart disease, diabetes mellitus, and inadequate contractions)

The research was conducted at Akhmad Berahim Hospital, Samarinda. Performing the Deeep Back Massage intervention, the pressure on the sacrum to reduce pain for 20 minutes during the contact, the pressure is terminated after the contact ends. Warm compresses using rubber bottles filled with warm water are attached to the back for 20 minutes during contractions. Warm compresses are done 3 times with 10-minute intervals of hot water to maintain the temperature around 37-40oC. The instrument uses a Numeric Rating Scale (NRS) and an observation sheet. Univariate and bivariate data analysis (t-test).

RESEARCH RESULTS
Univariate Analysis

Based on table 1, it can be seen that of the 30 respondents presenting the most 20 respondents based on age in 20-35 years old as much as 66.7%, based on the largest presentation education with high school education as many as 13 respondents (43.3%), then for presentations based on the number of pregnancies with the largest presentation with the first pregnancy as many as 9 respondents (30.0%).

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Table 1
Overview of respondent characteristics at Akhmad Berahim Hospital, Tana Tidung Regency

Variable	Frequency	Percent
Age of Respondents		
<20 Tahun	1	3,3
20-35 Tahun	20	66,7
>35 Tahun	9	30,0
Respondent Education		
Primary School	5	16,7
Junior High School	6	20,0
Senior High School	13	43,3
College	6	20,0
Respondent Parity		
1st pregnancy	9	30,0
2nd pregnancy	8	26,7
3rd pregnancy	8	26,7
pregnancy >4	5	16,7

Based on table 2, it can be seen that of the 15 respondents in the Deep back massage group before being given treatment (pre-test), 5 people (33.3%) experienced moderate pain, and 10 people (66.7%) experienced severe pain. In the deep back massage group that after being given the intervention (post-test) experienced a decrease in pain, 9 people (60%) experienced mild pain, and 6 people (6.7%) experienced moderate pain.

Table 2
Overview of Labor Pain in Mothers in Phase I of the Active Phase Before and After Deep Back Massage Labor Pain at Akhmad Berahim Hospital, Tana Tidung Regency

Pain	Pretest		Posttest	
	Frequency	Persent	Frequency	Persent
Mild Pain	-	-	9	60,0
Moderate Pain	5	33,3	6	40,0
Severe Pain	10	66,7	-	-

Table 3
Overview of labor pain in mothers during the first active phase before and after warm compresses at Akhmad Berahim Hospital, Tana Tidung Regency

Pain	Pretest		Posttest	
	Frequency	Persent	Frequency	Persent
Mild Pain			12	80,0
Moderate Pain	6	40,0	3	20,0
Severe Pain	9	60,0		

Based on table 3, it can be seen that of the 15 respondents in the Warm Compresses group before being given treatment (pre-test), 6 people (40%) experienced moderate pain, and 9 people (60%) experienced severe pain. In the Warm Compresses group that after being given the intervention (post-test) experienced a decrease in pain 12 people (80%) experienced mild pain, and 3 people (20%) experienced moderate pain.

Bivariate Analysis

Based on table 4 on the influence test using wilcoxon sign rank. Indicates that the statistical test output is known Asymp value. Sig. (2-tailed) at deep back massage is 0.000<0.05 which means that Ha is accepted and Asymp value. Sig. (2-tailed) at a warm compress of 0.001<0.05 that Ha is accepted. Thus, it can be concluded that there is an effect before and after the intervention of deep back massage and warm compresses on labor pain during active phase 1.

Table 4
The Effect of Deep Back Massage and Warm Compresses on Labor Pain in the I Active Phase
At Akhmad Berahim Hospital, Tana Tidung Regency

Intervensi	N	Z	Asymp. Sig. (2-tailed)
Pretest-posttest Deep back massage	15	-3,578	,000
Pretest-Posttest Warm Compress	15	-3,391	,001

DISCUSSION

Description of Labor Pain in Mothers During Phase I Active Phase Before and After Deep Back Massage Labor Pain at Akhmad Berahim Hospital, Tana Tidung Regency.

Based on the results of the study before being given deep back massage, the results of 15 respondents were obtained from 10 respondents (66.7%) feeling a pain scale of 7-9 or severe pain, namely pain objectively, the client sometimes cannot show commands but can still respond to actions, can show the location of pain, cannot describe it, is not overcome by changing the position of long breaths and friction. The results of the study after being given Deep back massage were obtained from 15 respondents, there were 9 respondents (60%) who felt on a pain scale of 1-3 or mild pain, which is objectively able to communicate well

Deep back massage quoted from Lally JE, in the book (Mardiana Ahmad et al. 2023) states that deep back massage is when childbirth can function as an epidural analgesic that can reduce pain and stress, so that it is able to provide comfort during childbirth, so it is necessary to provide essential care to the mother during the delivery process which aims to reduce pain and stress due to childbirth. According to Nolan (2003) in the book non-pharmacological pain management (Mardiana Ahmad et al., 2023), deep back massage causes the body to release natural pain relief hormones called endorphins. The results of the study stated that the endorphin levels of pregnant women who were massaged were higher than those who were not massaged. The higher the endorphin level, the lower the intensity of pain felt by the mother.

The results of previous studies showed that before Deep Back Massage, mothers who experienced severe pain levels were controlled by 20% with an average pain level between 5.69-6.41. and after doing Deep Back Massage, mothers who experienced controlled severe pain had decreased to moderate pain and mild pain with an average of 4.04-4.66. (Nengsih 2022). In line with the research

conducted by Ulya, the results of the study in the control group obtained an average pain intensity before the mass of 7.00 with a standard deviation of 0.816, min-max 6-8 and 95% CI was 6.61-7.39. After the average mass was 6.16 with a standard deviation of 1.259 min-max 4-8 and 95% of the CI was 5.55 – 6.76 (Annisa et al. 2019).

Thus, according to the researcher, there is a decrease in labor pain during the 1st active phase because of the deep back massage intervention which provides stimulus in the form of strong pressure on the lower back or sacrum area which can cause an effective relaxation and comfort effect in reducing pain during uterine contractions in the delivery process that occurs in the respondents, which is an unpleasant feeling that is individual in nature that will be experienced by the mother giving birth in the process. childbirth in both primipara and multipara mothers

Description of Labor Pain in Mothers in Phase I Active Phase Before and After Warm Compresses at Akhmad Berahim Hospital, Tana Tidung Regency

Based on table 3, it can be seen that of the 15 respondents in the Warm Compress group before being given treatment (pre-test), there were 6 people (40%) experiencing moderate pain, and 9 people (60%) experiencing severe pain, namely objectively the client's pain sometimes cannot show commands but can still respond to actions, can show the location of pain, cannot describing it, it is not overcome by changing the position of long breaths and friction. In the Warm Compress group that after the intervention (post-test) experienced a decrease in pain intensity, 12 people (80%) experienced mild pain, and 3 people (20%) experienced moderate pain. The results of the study after being given a warm compress were obtained from 15 respondents, there were 12 respondents (80%) who felt on a pain scale of 1-3 on a mild scale, which is objectively able to communicate well.

The administration of warm compresses has the working principle of heat transmission through conduction where heat is applied to the painful area, namely in this case the back to improve blood circulation and reduce muscle tension so that in the hope that pain can be reduced, so that it can make the mother feel more comfortable and can reduce pain during the delivery process, in addition to that warm compresses are vasodilating which can increase the local temperature on the skin so that can increase circulation in tissues to reduce the process of muscle spasms and reduce pain (Soeparno 2020). According to Andreinie's research in the study (Parapat and Tarigan, 2022), warm compresses are an easy action and can be done by anyone at home to overcome complaints of low back pain. According to Dewi in her research (Hayati and Hasanah 2018) Doing more compresses warm compresses for 20 minutes with 10-minute intervals of hot water to maintain the temperature This decrease occurs after the administration of warm compresses using warm bags placed on the sacrum and lower abdomen for 20 minutes and repeated 3 times. Giving warm compresses will make respondents feel more comfortable.

This is in line with research (Fitri, Umarianti 2023) which said that before and after the intervention in the experimental group had an average decrease of 2,062 while the control group had an average decrease of 1,188, this confirms that the majority of respondents experienced moderate pain decreasing to mild pain and severe pain decreasing to moderate pain. The results of the study also conducted by (Tarigan et al 2022) showed that the average intensity of labor pain during the 1st active phase experienced a significant decrease, ranging from moderate pain (40%) to mild pain (80%). that before the warm compress was applied, 73.3% of the 15 respondents experienced pain on a scale of 7-9 (severe pain) and after the intervention 53.3% experienced a decrease in pain scale of 4-6 (moderate pain), 20% experienced a decrease in pain scale 1-3 (mild pain), but 13.3% experienced a decrease in pain scale but still remained in the severe pain category, namely from a pain scale of 8 to a pain scale of 7 and 6.7% did not experience a decrease in persistent pain on a pain scale of 9. The results of the study showed that the pain range experienced before the warm compress was applied on a scale of 10-5 with an average of 7.6, after being given a warm compress on the pain scale range on a scale of 9-3 with an average of 5.8, this showed a decrease in the pain scale before and after being given a warm compress.

This is because warm compresses can increase blood flow to a part and reduce edema which will have an analgesic effect by slowing down the rate of nerve transmission so that pain impulses less reach the brain and pain perception will decrease.

The Effect of Deep Back Massage and Warm Compresses on Labor Pain in the First Active Phase at Akhmad Berahim Hospital, Tana Tidung Regency

To find out whether there is an effect of deep back massage and warm compresses on labor pain during the first active phase in pregnant women using SPSS software with the Wilcoxon Sign Rank test

Based on the discussion above, it can be seen that there is a decrease in labor pain before and after the intervention of deep back massage and warm compresses, the results of P value = 0.000 < 0.05 which means that there is an effect of deep back mass intervention and warm compresses on labor pain during the first active phase. The impact of the deep back massage method is to increase the release of endorphins, in addition to reducing pain, it can also increase the action of oxytocin in helping myometrium contractions in the opening process. In the respondents who were given the deep back massage method, emphasis was placed on the sacrum at the beginning of the contraction. Emphasis can be done with clenched hands like tennis balls on sacrum 2,3,4. Ask the mother to take a deep breath and then exhale gently (Utari et al 2022).

Applying a warm compress to the area of the body that feels pain will send a signal to the hypothalamus through the spinal cord. When heat-sensitive receptors in the hypothalamus are stimulated then the effector system emits a signal that initiates sweating and peripheral vasodilation. Changes in the size of blood vessels are regulated by the vasomotor center in the medulla oblongata of the brain stalk, under the influence of the anterior hypothalamus so that vasodilation occurs. Heat will stimulate nerve fibers that close the gate so that the transmission of pain impulses to the spinal medulla and to the brain is induced (Soeparno et al., 2020).

The results of the above study show that the deep back massage method is effective in reducing labor pain with the action of 3 massages on the mother's back during contractions. Therefore, the researcher assumes that it is very well applied to mothers who give birth with a more frequent

massage frequency during contractions by birth companions such as husbands where the closeness of emotional relationships will be more established so that mothers feel more attention and affection to face the labor process.

This is in line with the research of Nurulicha (2019) The results of the study show that there is an effect before and after Deep Back Massage on the level of pain in pregnant women during the first active phase (opening 4-7 cm). Many factors affect pain during childbirth where the pain felt is a physiological mechanism and is subjective according to what the individual feels. Adaptation to pain must be passed by the mother during the first phase of childbirth. The age of the mother during childbirth is one of the factors that affect pain (Anita, et al 2022).

According to the researchers' assumption of a warm compress applied to the mother's lower back in the area where the fetal head presses against the spine, the heat effect transmitted through the warm compress can reduce pain by improving blood circulation, reducing muscle stiffness so that the mother can feel comfortable and helping to reduce pain at the onset of labor

CONCLUSION

Based on the discussion above, it can be seen that there is an intervention effect of deep back mass and warm compresses on labor pain in the first active phase. The impact of the deep back massage method is to increase the release of endorphins, in addition to reducing pain, it can also increase the action of oxytocin in helping the myometrium contract in the opening process.

The results of the study showed that the deep back massage method was effective in reducing labor pain with the action of 3 massages on the mother's back during contractions. Whereas a warm compress is applied to the mother's lower back in an area where the fetal head presses against the spine, the heat effect transmitted through the warm compress can reduce pain by increasing blood circulation, reducing muscle stiffness so that the mother can feel comfortable and helping to reduce pain at the beginning of labor

SUGGESTION

For health workers in hospitals or independent practice places, you can use deep back massage techniques and warm compresses to help reduce labor pain during the 1st active phase

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THE EFFECT OF FENUGREEK PLANT ON IMPROVING BREASTMILK PRODUCTION IN MOTHERS NURSING INFANTS AGED 0-6

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ABSTRAK : PENGARUH KELABET DALAM MEMPERLANCAR PENGELUARAN ASI PADA IBU MENYUSUI 0-6 BULAN

World Health Organitasion (WHO) merekomendasikan minimal pemberian ASI yaitu 50% (WHO, 2019).Kementrian Kesehatan menargetkan pemberian Asi ekslusif hingga 80%, Menurut data Riset Kesehatan Dasar (RISKESDAS) tahun 2021, tahun 2019 yang pada saat itu telah mencapai sebanyak 74,5% dari target capaian 80%.Data cakupan Dinas Kesehatan Kabupaten Lampung Utara sebanyak 55%, dari 65%, hasil dari data Pendekatan Keluarga Sehat (PIS-PK) pada tingkat Kecamatan Bunga Mayang sebanyak 67,74%, dan pada wilayah kerja Puskesmas Mulyorejo terdapat cakupan Asi esklusif sebanyak 45, 10%, dan cakupan Desa Mulyorejo 1 sebanyak 49,4%. Salah satu metode memperlancar ASI pada ibu dapat dilakukan melalui metode non farmakologi. Tujuan penelitian ini diketahui pengaruh kelabet dalam mamperlancar pengeluaran asi di Desa Mulyorejo 1 Kecamatan Bunga Mayang Kabupaten Lampung Utara Tahun 2023.

Jenis penelitian kuantitatif, rancangan penelitan pra experimental dengan pendekatan *one grouppretest-postest*. Populasi penelitian ini adalah rata-rata ibu menyusui 0-6 bulan sebanyak 30 orang dengan sampel sebanyak 30 responden menggunakan teknik total sampling,analisis univariat dan bivariat (uji wilcoxon).

Hasil univariat didapatkan hasil rerata kelancaran pengeluaran asi pada berat badan mean 5364, standar deviasi 568,pada panjang badan mean 56,2 standar deviasi 4,5, lingkar kepala mean 38,8 standar deviasi 3,0.Analisis bivariat menunjukkan hasil pada berat badan mean 6538,3 standar deviasi 565,1, panjang badan mean 56,9 standar deviasi 4,5 lingkar kepala mean 39,4 standar deviasi 4,0 yang menunjukkan adanya pengaruh kelabet dalam mamperlancar pengeluaran ASI di Desa Mulyorejo 1 Kecamatan Bunga Mayang Kabupaten Lampung Utara Tahun 2023 (p-value = 0,000).Saran bagi ibu menyusi kelabet dapat dikonsumsi dalam Upaya menigkatkan produksi ASI.

Kata Kunci : Produksi ASI, biji klebet, ibu menyusui

ABSTRACT

The World Health Organization (WHO) recommends a minimum of 50% breastfeeding (WHO, 2019). The Ministry of Health targets exclusive breastfeeding up to 80%. According to the Basic Health Research (RISKESDAS) data for the year 2021, in 2019, the rate reached 74.5% of the 80% target. The coverage data from the North Lampung Regency Health Office is 55%, from 65%. The results from the Family Approach to Healthy Living (PIS-PK) at the Bunga Mayang sub-district level are 67.74%, and in the working area of the Mulyorejo Public Health Center, exclusive breastfeeding coverage is 45.10%, with a coverage rate in Mulyorejo 1 village of 49.4%. One non-pharmacological method to facilitate breastfeeding is the use of fenugreek plant. The purpose of this study is to determine the influence of fenugreek Plant on improving breastmilk production in Mulyorejo 1 village, Bunga Mayang sub-district, North Lampung Regency, in the year 2023.

This was a quantitative study with a pre-experimental design using a one-group pretest-posttest approach. The study population consisted of an average of 30 mothers breastfeeding infants aged 0-6 months, with a sample of 30 respondents using total sampling. Univariate and bivariate analysis (Wilcoxon test) was used for data analysis.

Univariate results showed the average smoothness of breastmilk production in terms of weight, with a mean of 5364 and a standard deviation of 568; in terms of length, with a mean of 56.2 and a standard deviation of 4.5; and in terms of head circumference, with a mean of 38.8 and a standard deviation of 3.0. Bivariate analysis showed results for weight with a mean of 6538.3 and a standard deviation of 565.1, length with a mean of 56.9 and a standard deviation of 4.5, and head circumference with a mean of 39.4 and a standard deviation of 4.0, indicating the influence of fenugreek Plant on improving breastmilk production in Mulyorejo 1 village, Bunga

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Mayang sub-district, North Lampung Regency, in the year 2023 (p-value = 0.000). The recommendation for breastfeeding mothers is to consume fenugreek Plant to increase breastmilk production.

Keywords: Breastmilk Production, Fenugreek Plant Seeds, Breastfeeding Mothers

INTRODUCTION

The World Health Organization (WHO) recommends providing nutritional standards for babies, namely breastfeeding babies aged 0-6 months. WHO's minimum target for breastfeeding is 50% (WHO, 2019). The Ministry of Health is targeting exclusive breastfeeding of up to 80%, according to Basic Health Research data (RISKESDAS) in 2021, in Indonesia as many as 52.5% of the 2.3 million babies under 6 months received exclusive breastfeeding, down 22% from 2019, which at that time had reached 74.5% of the target achievement of 80%. Based on data from the Lampung Provincial Health Service in 2022, there is exclusive breastfeeding coverage of 61% of the provincial target of 65%, in data from the North Lampung District Health Service coverage of 55%, from 65%, results from data from the Healthy Family Approach (PIS-PK) in Bunga Mayang Subdistrict level is 67.74%, and in the Mulyorejo Community Health Center working area there is exclusive breast milk coverage of 45.10%, and Mulyorejo Village 1 coverage is 49.4% (PIS-PK Lampung Utara, 2022).

Low breast milk coverage is influenced by various factors, one of which is not maximal milk production, characterized by the breast feeling soft, the baby still wanting to breastfeed even though he has been given breast milk, the baby's weight not increasing according to the baby's weight criteria. Breast milk is a source of nutritional intake. for newborn babies, where the nature of breast milk (mother's milk) is exclusive because it is given to babies aged 0-6 months. In this phase, careful attention must be paid to the quality of breast milk, so that it does not interfere with your little one's development stage since the first day of birth. , considering the golden period of child development until they reach 2 years (Ministry of Health, 2018)

Important components of breast milk are antibodies that help the body's resistance and various enzymes in breast milk that help absorb nutrients that are not available in formula milk. Breast milk contains these substances and also has the lipase enzyme for absorption. This enzyme is not included in powdered milk because heating destroys this enzyme. With these conditions, mothers are advised to give exclusive breast milk to their babies for 6 months (Gurning, Alfazira,

Hairuna, & Hasibuan, 2021). Breast milk is very beneficial for mothers and babies, there are several benefits for babies 0-6 months, namely preventing disease, helping the baby's brain and physical development, apart from that, breast milk is also beneficial for mothers, namely overcoming trauma and preventing breast cancer. (Asnidawati & Ramdhan, 2021. Methods for facilitating breast milk in mothers can be done through various techniques, including consuming katuk leaves, consuming breast milk facilitating medicines, consuming herbal (traditional) medicines such as herbal medicine, breast massage, breast compresses. One method of facilitating breast milk that is easy to do is by consuming breast milk promoting substances contained in food or drinks. Currently, there are various kinds of breast milk-stimulating drugs that are sold generally in the community. Breast milk facilitating drugs sold on the market may contain chemicals that can have a negative impact on the body. Therefore, the use of traditional herbal ingredients to facilitate breast milk is better and without side effects (Kurniati & Azizah, 2021).

Fenugreek is one of the plants that contains sapogenins such as diosgenin and yamogenin which have estrogenic properties. Because fenugreek seeds contain diosgenin, they have phytoestogenic properties which have a chemical structure similar to estrogen and can attach to α and β receptors and may have estrogenic properties which are effective in increasing breast milk production. Because of the large number of this plant in Indonesia, and some literature shows that fenugreek seeds contain the same effect as estrogen, this plant is used as an alternative to meet breast milk needs. (Siti Halimah, et al)

Based on research conducted by Karima, N., Pratama, M. R., & Berawi, K. N. (2019), it was found that there is a relationship between smooth breastfeeding and consumption of fenugreek in breastfeeding mothers.

Based on a pre-survey conducted in Mulyorejo 1 Village, Bunga Mayang District, North Lampung Regency, in February-March 2023 there were 30 breastfeeding mothers aged 0-6 months who provided exclusive breast milk to their babies. And many fenugreek plants were found in the Mulyorejo 1 area.

RESEARCH METHODS

The research method used is quantitative. The population in this study was 30 breastfeeding mothers aged 0-6 months who did not consume breast milk supplements. Sample of 30 respondents. To determine a sample from the population, calculations and tables developed by experts are used. The measurement method in this research is by measuring the baby's weight, body length and head circumference and the measurement results are recorded on an observation sheet, with the measuring instruments used are scales and measuring tape. Quantitative methods are This type of research is a type of research to get an accurate picture of the characteristics of a problem that classifies data and collects data related to numbers both obtained from measurement results and the value of the data obtained (Notoatmodjo, 2018).

RESEARCH RESULTS

Uji Normalitas

The analysis testing in this study has clearly been met because the research sample was randomly selected from breastfeeding mothers aged 0-6 months in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023. To ensure the accuracy of the sample selection, another requirement for analysis was tested, which is the normality test using the Shapiro-Wilk value. If the Shapiro-Wilk value is > 0.05, then the distribution is considered normal (Hastono, 2016)

Table 1
Normality Test Data

Breast Milk Smoothness	Kelebet	*Shapiro-Wilk*	Ket
Before	Weight	0.004	Not Normal
	Length	0.001	Not Normal
	Head circumference	0.000	Not Normal
After	Weight at day 14	0.028	Not Normal
	Length at day 14	0.001	Not Normal
	Head circumference at day 14	0.000	Not Normal

Based on the table 1 above, the normality test using the Shapiro-Wilk test for the variables in the intervention group, both before and after, resulted in significant values < 0.05, which means the data is not normal. The analysis will proceed with a bivariate analysis using the Wilcoxon test

Univariate Analysis

Univariate analysis aims to describe the average data for both before and after breastfeeding mothers aged 0-6 months are given fenugreek plant in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023.

The smoothness of breast milk production for breastfeeding mothers aged 0-6 months before being given Fenugreek Plant in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023.

Table 2
The average smoothness of breast milk production for breastfeeding mothers aged 0-6 months before being given Fenugreek Plant in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023

Breast Milk Production	Mean	Sd	Min	Max	N
Weight	5364.0	568.225	3800	6420	30
Length	56.2	4.5	40.0	65.7	30
Head Circumference	38.8	3.0	36.0	58.7	30

Based on the table 4.3 above, it is known that the smoothness of breast milk production before for weight is 5364.0 grams, with a standard deviation of 568.2 grams, a minimum value of 3800 grams, and a maximum value of 6420 grams. The smoothness of breast milk production for length is

56.2 cm, with a standard deviation of 4.5 cm, a minimum value of 40.0 cm, and a maximum value of 65.7 cm. The smoothness of breast milk production for head circumference is 38.8 cm, with a standard deviation of 3.0 cm, a minimum value of 36.0 cm, and a maximum value of 58.7 cm.

The smoothness of breast milk production for breastfeeding mothers aged 0-6 months after being given fenugreek plant in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023

Table 3
The average smoothness of breast milk production for breastfeeding mothers aged 0-6 months after being given fenugreek plant in Mulyorejo 1 Village, Bunga Mayang Sub-District, North Lampung Regency, in the year 2023.

Breast Milk Production	Mean	Different Mean	Sd	Min	Max	N
Weight at day 14	6538.3	1174	565.1	5000	7600	30
Length at day 14	56.9	0.67	4.5	40.6	66.5	30
Head circumference at day 14	39,4	0.60	4.0	36.4	59.3	30

Based on Table 3 above, it is known that the smoothness of breast milk production after intervention for weight is 6538.3 grams, with a standard deviation of 565.1 grams, a minimum value of 5000 grams, and a maximum value of 7600 grams. The smoothness of breast milk production for length is 56.9 centimeters, with a standard deviation of 4.5 centimeters, a minimum value of 40.6 centimeters, and a maximum value of 66.5 centimeters. The smoothness of breast milk production for head circumference is 39.4 centimeters, with a standard deviation of 4.0 centimeters, a minimum value of 36.4 centimeters, and a maximum value of 59.3 centimeters

DISCUSSIONS
Univariate Analysis
Average Breast Milk Production for Mothers Breastfeeding 0-6 Months Before Receiving Fenugreek Plant

The univariate analysis shows that the breast milk production before receiving Fenugreek Plant had the following characteristics:

- Weight: The mean weight was 5364.0 grams, with a standard deviation of 5364.0 grams, a minimum value of 3800 grams, and a maximum value of 2620 grams.
- Length: The mean length was 56.2 cm, with a standard deviation of 4.5 cm, a minimum value of 40.0 cm, and a maximum value of 65.7 cm.
- Head Circumference: The mean head circumference was 38.8 cm, with a standard deviation of 3.0 cm, a minimum value of 36.0 cm, and a maximum value of 58.7 cm.

Efforts were made to increase breast milk production non-pharmacologically by using

Fenugreek Plant because Fenugreek Plant seeds contain diosgenin and phytoestrogen-like compounds, which may affect the production of oxytocin hormone, thus influencing breast milk production.

Criteria for Sufficient/Insufficient Breast Milk

There are several criteria that can be used to determine whether a baby is receiving enough breast milk, including: Abundant breast milk can leak out through the nipple, especially when the mother thinks about breastfeeding or remembers the baby. The breast feels tense before breastfeeding. The baby breastfeeds vigorously, then weakens and falls asleep soundly. The baby breastfeeds every 2-3 hours, or at least 8 times in 24 hours during the first 2-3 weeks. The breast feels softer, indicating that the breast milk has been emptied. If breast milk is sufficient, the baby will sleep or be calm for 3-4 hours after breastfeeding. The baby will urinate about 6-8 times a day.The baby's weight will increase with age. In the first month, the baby's weight will increase by less than 300 grams. (Halimah, S., Wijayanti, K., & Ta'adi, 2022). The baby's weight may decrease in the first few days due to the passage of meconium and inadequate intake of fluid. Weight loss should not exceed 10%, and the baby's weight will start to increase again from day 4 to day 10 and beyond (Sarwono, 2006).

Babies may lose up to 10% of their birth weight in the first few days but should return to their birth weight by two weeks of age. Weight gain in babies is divided into two stages: from 0-6 months and from 6-12 months. Weight gain in babies aged 0-6 months is around 140-200 grams per week, and

by the end of the 6th week, their weight doubles from birth weight.

Consistent with the research by Nisa Karimah et al. (2019), the results before intervention showed standard deviation for weight was 5,282, and head circumference with a standard deviation of 38.3. The study by Ghasemi et al. (2014) also showed results before intervention, including weight with a mean of 5282, length with a mean of 58.1, and head circumference with a mean of 38.3.

The researchers believe that during pregnancy, prolactin hormone from the placenta increases, but breast milk does not come out yet due to the influence of high levels of estrogen. Estrogen and progesterone levels will decrease on the second or third day after delivery, leading to breast milk secretion. Breast preparation for breastfeeding begins during pregnancy, marked by an increase in breast size along with the growth of alveolar glands due to the increased levels of estrogen hormone.

Average Breast Milk Production for Mothers Breastfeeding 0-6 Months After Receiving Fenugreek Plant

The univariate analysis shows that breast milk production after receiving fenugreek plant had the following characteristics: Weight: The mean weight was 6538.3 grams, with a standard deviation of 565.1 grams, a minimum value of 5000 grams, and a maximum value of 7600 grams. Length: The mean length was 56.9 cm, with a standard deviation of 4.5 cm, a minimum value of 40.6 cm, and a maximum value of 66.5 cm. Head Circumference: The mean head circumference was 39.4 cm, with a standard deviation of 4.0 cm, a minimum value of 36.4 cm, and a maximum value of 59.3 cm.

The efforts to increase non-pharmacological breast milk production using fenugreek plant were made because Fenugreek Plant seeds contain diosgenin and have phytoestrogen-like properties with a chemical structure similar to estrogen. This may attach to α and β receptors and possibly have estrogenic properties effective in increasing oxytocin hormone levels, which affect breast milk production.

Criteria for Sufficient/Insufficient Breast Milk

There are several criteria that can be used to determine whether a baby is receiving enough breast milk, including: Abundant breast milk can leak out through the nipple, especially when the mother thinks about breastfeeding or remembers the baby. The breast feels tense before breastfeeding. The baby breastfeeds vigorously,

then weakens and falls asleep soundly. The baby breastfeeds every 2-3 hours, or at least 8 times in 24 hours during the first 2-3 weeks. The breast feels softer, indicating that the breast milk has been emptied. If breast milk is sufficient, the baby will sleep or be calm for 3-4 hours after breastfeeding. The baby will urinate about 6-8 times a day. The baby's weight will increase with age. In the first month, the baby's weight will increase by less than 300 grams. (Halimah, S., Wijayanti, K., & Ta'adi, 2022). The baby's weight may decrease in the first few days due to the passage of meconium and inadequate intake of fluid. Weight loss should not exceed 10%, and the baby's weight will start to increase again from day 4 to day 10 and beyond (Sarwono, 2006).

Babies may lose up to 10% of their birth weight in the first few days but should return to their birth weight by two weeks of age. Weight gain in babies is divided into two stages: from 0-6 months and from 6-12 months. Weight gain in babies aged 0-6 months is around 140-200 grams per week, and by the end of the 6th week, their weight doubles from birth weight.

In line with the research by Nisa Karimah et al. (2019), the results after the intervention showed that the weight with standard deviation changed from 5,282 to 6,383, and head circumference changed from 38.3 to 39.9 SD. The study by Ghasemi et al. (2014) also showed results after the intervention, including weight changing from a mean of 5282 to 5876, length changing from a mean of 58.1 to 59.1, and head circumference changing from a mean of 38.3 to 39.0, indicating the influence of fenugreek plant administration on breast milk production in mothers breastfeeding 0-6 months.

The researchers believe that during pregnancy, prolactin hormone from the placenta increases, but breast milk does not come out yet due to the influence of high levels of estrogen. Estrogen and progesterone levels will decrease on the second or third day after delivery, leading to breast milk secretion. Breast preparation for breastfeeding begins during pregnancy, marked by an increase in breast size along with the growth of alveolar glands due to the increased levels of estrogen hormone.

Bivariate Analysis
The Influence of Fenugreek Plant in Enhancing Breast Milk Production in Mulyorejo 1 Village, Bunga Mayang Sub-district, North Lampung Regency, 2023

The results of the bivariate analysis show a p-value of 0.000 (p-value < α 0.05), indicating that

there is an influence of fenugreek plant in enhancing breast milk production in Mulyorejo 1 Village, Bunga Mayang Sub-district, North Lampung Regency, in the year 2023.

Breast milk is the most complete and perfect single food for infants up to 6 months old, as it contains all the necessary nutrients for the baby. Breast milk components are easily digestible because they contain appropriate nutrients and enzymes to digest the nutrients present in breast milk. The nutritional content of breast milk includes taurine, decosahexanoic acid (DHA), arachinoic acid (AA), carbohydrates, proteins, fats, minerals, and vitamins.

There are various methods to enhance breast milk production in mothers, including consuming katuk leaves, using medications to stimulate breast milk production, consuming traditional herbal remedies such as jamu, breast massage, and breast compresses. One of the simple methods to enhance breast milk production is by consuming substances that stimulate breast milk production found in food or beverages. Currently, there is a wide range of medications available in the market to stimulate breast milk production, but these medications may contain chemical compounds that could have negative effects on the body. Therefore, the utilization of traditional herbal ingredients as breast milk stimulants is considered a safer alternative without side effects (Kurniati & Azizah, 2021). Efforts to enhance breast milk production through non-pharmacological means focus on the use of herbal remedies and traditional therapies. These approaches include the application of oxytocin massages, breast care, Marmet massages, acupressure, as well as the consumption of various herbs and foods like katuk leaves, moringa leaves, fennel, torbangun leaves, long beans, Fenugreek Plant seeds, and dates. These natural remedies are believed to effectively increase breast milk production (Halimah, S., Wijayanti, K., & Ta'adi. 2022).

Breast Milk Flow refers to the release of breast milk, which is considered smooth or adequate when there is an excess of breast milk production. This is typically indicated by the milk dripping or flowing vigorously when the baby is nursing.

Criteria for Sufficient/Insufficient Breast Milk

Several criteria can be used to determine if a baby is receiving enough breast milk, including: Abundant breast milk can leak from the nipple, especially when the mother thinks about breastfeeding or the baby. The breasts feel firm before nursing. The baby nurses strongly, then weakens and falls asleep. The baby consumes breast milk every 2-3 hours or a minimum of 8 times in 24 hours during the first 2-3 weeks. The breasts feel softer, indicating that the milk has been emptied. If there is enough breast milk, the baby will sleep or remain calm for 3-4 hours after nursing. The baby urinates approximately 6-8 times per day. The baby's weight gain matches their age. In the first month, the baby's weight should increase by at least 300 grams (Halimah, S., Wijayanti, K., & Ta'adi. 2022). The baby's weight may drop in the first few days due to meconium excretion and inadequate fluid intake. The weight loss should not exceed 10%, and the baby's weight should gradually increase after the 4th day, reaching its birth weight (Sarwono, 2006).

A baby will experience a weight loss of 10% in the first few days and will return to their birth weight by two weeks of age. Baby weight gain is divided into two periods: from 0-6 months and from 6-12 months. During the 0-6 month range, a baby's weight will typically increase by approximately 140-200 grams per week, and by the end of the sixth week, their weight will double compared to their birth weight.

The fenugreek plant, known by its Latin name Trigonella foenum-graecum L, is one of the oldest medicinal herbs that has been cultivated and documented in history. Many studies have shown the various benefits of its plant parts, particularly its seeds (Srinivasan, 2006). Fenugreek is widely found in Indonesia and is known for its strong flavor and aroma. The composition of fenugreek seeds consists of 20% to 30% protein, 45% to 60% carbohydrates (primarily galactomannan, a mucilaginous fiber in cell walls), and 5% to 10% lipids. Other important components include pyridine-type alkaloids (mostly trigonelline), free amino acids (especially 4-hydroxyisoleucine), saponins, and glycosides that yield steroid sapogenins upon hydrolysis, such as diosgenin. Because fenugreek seeds contain diosgenin and exhibit phytoestrogenic properties with a chemical structure similar to estrogen, they can bind to α and β receptors and may have estrogenic effects that effectively influence oxytocin hormone production, thereby impacting breast milk production.

line with the study conducted by Nisa Karimah et al. (2019), the research results yielded the following p-values:
- Body weight p-value = 0.001 (p-value < α 0.05)

- Body length): p-value = 0.005 (p-value < α 0.05)

- Head circumference (p-value = 0.001 (p-value < α 0.05)

These results indicate that there is an influence of fenugreek plant in enhancing the breast milk production of mothers who breastfeed infants aged 0-6 months.

According to the researcher, the increase in the baby's weight, length, and head circumference among those who received intervention with fenugreek plant is attributed to the fenugreek's content of sapogenins such as diosgenin and yamogenin, which have estrogen-like properties that can influence oxytocin hormone production, thus enhancing breast milk production. There was a minimum increase in weight of 1115 grams, a minimum increase in length of 0.58 cm, and a minimum increase in head circumference of 0.5 cm. The minimal results in weight gain may be due to the lack of support from husbands in enabling mothers to breastfeed their babies to the fullest, as the study did not involve husbands in providing support for the research conducted.

CONCLUSIONS

The research with the title "The Influence of Fenugreek Plant in Enhancing Breast Milk Production for Mothers Nursing Babies Aged 0-6 Months in Mulyorejo 1 Village, Bunga Mayang Subdistrict, North Lampung District, 2023" can be summarized as follows: The smoothness of breast milk production for mothers nursing babies aged 0-6 months before receiving fenugreek intervention had the following means: Before intervention, the mean weight was 5365.00 grams, the mean length was 562.80 cm, and the mean head circumference was 38.850 cm. The smoothness of breast milk production for mothers nursing babies aged 0-6 months after receiving fenugreek intervention had the following means: After intervention, the mean weight was 6532.3 grams, the mean length was 569.57 cm, and the mean head circumference was 39.457 cm. The statistical test results yielded a P-value of 0.000 (<0.05), indicating that there is an influence of fenugreek in enhancing breast milk production in Mulyorejo 1 Village, Bunga Mayang Subdistrict, North Lampung District, in 2023 (p-value = 0.000).

SUGGESTIONS

a. For Theoretical Aspects
The results of this research can serve as scientific information about fenugreek for enhancing breast milk production in mothers nursing babies aged 0-6 months.

b. For Mulyorejo Village
The results of this research can be disseminated to the community as a practical method for enhancing breast milk production, which can be done at home.

c. For Malahayati University
The results of this research can be used as a reference for academics at the university involved in improving public health, especially in research related to enhancing breast milk production. It can also serve as a basis for community engagement projects.

d. For Other Researchers
The results of this research can be used as a reference for conducting further research related to the influence of fenugreek in enhancing breast milk production in mothers aged 0-6 months. Furthermore, it is recommended that future research involve the participation of husbands in the intervention to maximize the research outcomes.

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THE EFFECT OF HEALTH PROMOTION THROUGH BOOKLEDY MEDIA (IUD BOOKLET) ON KNOWLEDGE AND ATTITUDES ABOUT IUD CONTRACEPTION IN WOMEN OF CHILDBEARING AGE

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ABSTRAK

Latar Belakang: Jumlah peserta KB aktif wanita usia subur di Kota Pariaman adalah sebanyak 1.016 dengan jenis alat kontrasepsi yaitu suntik 329 orang (32,4%), pil sebanyak 318 orang (31,2%), implan sebanyak 157 (15,5%), dan IUD sebanyak 212 (20,9%), menunjukkan bahwa pengguna kontrasepsi IUD juga masih rendah dibandingkan dengan kontrasepsi lain dalam non-MKJP.

Tujuan: Untuk mengetahui pengaruh promosi kesehatan melalui media bookledy terhadap pengetahuan dan sikap tentang kontrasepsi IUD pada wanita usia subur di wilayah kerja Puskesmas Naras Kota Pariaman.

Metodologi: Jenis penelitian yang digunakan adalah Pre eksperiment *(pre-post test design one group)*. Sampel dalam penelitian ini adalah wanita usia subur di Wilayah Kerja Puskesmas Naras Kota Pariaman yang berjumlah 36 orang, pengambilan sampel menggunakan teknik acidental sampling. Analisis data menggunakan uji paired t test.

Hasil Penelitian: Hasil penelitian diperoleh rerata pengetahuan sebelum (5.19) dan sesudah (7.22), sedangkan hasil rerata sikap sebelum (28.67) dan sesudah (33.64). Hasil uji paired t test diperoleh *p value* = 0.000 < 0.05 yang menunjukkan ada pengaruh promosi kesehatan melalui media bookledy terhadap pengetahuan dan sikap tentang kontrasepsi IUD pada wanita usia subur di wilayah kerja Puskesmas Naras Kota Pariaman.

Kesmpulan: Ada pengaruh promosi kesehatan melalui media bookledy terhadap pengetahuan dan sikap tentang kontrasepsi IUD pada wanita usia subur di wilayah kerja Puskesmas Naras Kota Pariaman.

Saran: Penelitian ini diharapkan dapat dijadikan pilihan alternatif intervensi kesehatan untuk promotor kesehatan dalam menyampaikan informasi tentang kontrasepsi IUD.

Kata Kunci : Bookledy (Booklet IUD), Pengetahuan, Sikap

ABSTRACT

Background: The number of active family planning participants for women of childbearing age in Pariaman City was 1.016 with the types of contraceptives, namely injections 329 people (32,4%), pills as many as 318 people (31.2%), implants as many as 157 (15.5%), and IUD as many as 212 (20.9%), indicating that IUD contraceptive users were still low compared to other contraceptives in non-MKJP.

Purpose: This study aimed to determine the effect of health promotion through bookledy media on knowledge and attitudes about IUD contraception in women of childbearing age in the working area of Naras Health Center, Pariaman City .

Method :The type of research used was pre-experimental (pre-post test design one group). The sample in this study were women of childbearing age in the Naras Health Center Work Area, Pariaman City, amounting to 36 people, taking samples using the acidental sampling technique using the paired t test.

Results: The results of the study obtained the average knowledge before (5.19) and after (7.22), while the average attitude before (28.67) and after (33.64). The results of the paired t test obtained p value = 0.000 < 0.05 which indicated that there was an effect of health promotion through bookledy media on knowledge and attitudes about IUD contraception in women of childbearing age in the work area of the Naras Health Center, Pariaman City.

Conclusion: There is an influence of health promotion through bookledy media on knowledge and attitudes about IUD contraception in women of childbearing age in the work area of Naras Health Center in Pariaman City.

Suggestion: This research was expected to be an alternative choice of health intervention for health promoters in conveying information about IUD contraception.

Keywords: Bookledy (IUD Booklet), knowledge, attitude.

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INTRODUCTION

Indonesia's population growth has increased from time to time. To control the population, the government of the Republic of Indonesia launched the Family Planning Program (KB). According to the World Health Organization (WHO) in 1970, family planning is an action that helps married couples to avoid unwanted pregnancies, get highly desirable births, regulate the interval between pregnancies, control the time of birth in relation to the age of the husband and wife and determine the number of children and families. In implementing family planning programs, the government recommends that the community, especially mothers, use appropriate contraceptives so that they can contribute to improving the quality of the population(1).

The Indonesian Health Pofil in 2017 stated that, Indonesia has a population of 261,890,872 people. Government programs to reduce the speed of population growth can be carried out with the Family Planning movement and the use of contraceptives. The family planning movement is carried out to build a prosperous family to create optimal human resources. Family planning programs are one of the most effective ways to improve family safety, health and safety of mothers, children, and women (2).

According to the 2018 RPJMN survey, contraceptive use among Indonesian married women fell from 60.9% in 2016 to 59.7% in 2017 and in the results of the 2018 Program Accountability Performance Survey (SKAP) rose to 60%. The use of modern contraception among married women aged 15-49 years is 57% and has not reached the national target set by the 2015-2019 Strategic Plan, in 2018 which is 61.1% (3).

Government policy on family planning currently leads to the use of long-term contraceptive methods (MJKP). The Intra Uterine Device (IUD) is one of the most effective and safest long-acting contraceptives compared to other contraceptives such as the pill. IUD contraception is very effective in suppressing maternal mortality and controlling population growth, with an effectiveness rate of up to 99.4% IUDs for a period of 3-5 years (hormone type) and 5-10 years (copper type) used. The IUD contraceptive device is inserted into the uterus of a different shape consisting of plastic (Polyethylene) (2). In Saifuddin's 2006 research mentioned the advantages of IUD contraceptives are effective immediately after installation is a long-term method (eight years protection and does not need to be replaced), the acceptor should not be remembered when he should have re-birth control, no hormonal side effects, no impact on breast milk volume and can be installed immediately with birth or after abortion.

IUD is one type of non-hormonal contraceptive and includes long-acting contraception that is ideal in reducing pregnancy. The advantage of using an IUD is that it only requires one installation for a long period of time at a low cost, safe because it does not have a systemic effect that circulates throughout the body, does not affect milk production and fertility quickly returns after the IUD is removed. However, there are also many factors that influence mothers in determining the contraceptive method to be used. According to Purba (2009) there are several factors that influence the choice of contraceptive method used, namely predeposition factors (age, education, number of children, knowledge, attitudes), supporting factors (availability of contraceptives, distance from home to health facilities, travel time, and costs), and driving factors (health workers). The level of knowledge and education of mothers in this case is very influential on the use of IUD birth control(4). The level of education will affect the insight and knowledge of the mother. The lower the mother's education, the access to information about birth control, especially IUDs, will decrease, so that mothers find it difficult to make effective decisions about which contraceptives to choose by mothers(5).

The results of the data that have been obtained, show that IUD contraceptive users are still low compared to other contraceptives in non-MKJP. The low use of IUD contraceptives is caused by various factors, one of which is knowledge. Lack of knowledge about IUD contraception where understanding, benefits, side effects, the right time for insertion, makes birth control acceptors afraid to use IUDs. The need for increased counseling or promotion programs regarding IUD contraceptives is expected to increase WUS (Women of Childbearing Age) knowledge about understanding, side effects, benefits, and the right time for installation. This counseling is expected to increase public knowledge about IUD contraceptives so that the number of IUD birth control participants will also increase(6).

According to Notoatmodjo (2018), knowledge is the process of sensing humans to certain objects because most of human knowledge is obtained through the eyes and ears. One way to acquire knowledge is through health promotion which is an effort made to provide knowledge as a basis for behavior change that can improve the health status

of individuals, families, groups and communities through learning activities(8).

Health promotion in a general sense is any planned effort to influence others, whether individuals, groups, or communities so that they do what is expected by health promoters. And these limits implied elements of input (goals and educators of education), process (planned effort to influence others), and output (doing what is expected). The expected outcome of a health promotion or health education is a health behavior or behavior to maintain and promote health that is conducive to the goals of health promotion(3).

Extension factors, materials, methods and media or tools can be used to achieve success in health promotion. One of the most effective print media of health promotion is the booklet. Booklet is a medium to convey health messages in the form of writing and images. Booklets as channels, tools, facilities and supporting resources to convey messages must adjust to the content of the material to be delivered (9). The presentation of the booklet using images and colors gives it an attractive look. Booklets are almost similar to books made in various forms of attractive designs with information content presented briefly and clearly (1).

The results of Purnamasari's research (2021) show that providing midwife counseling with booklet media about IUD contraception is effective in increasing the knowledge of primigravida mothers at Nirmala Suri Sikoharjo Hospital. There are also research results by Istiqomah, et al (2016), found that there is a significant difference in the level of knowledge of women of childbearing age about IUD contraception after being given health promotion using leaflet media (6). There are also the results of Sari's research (2019) found that there is an influence on providing counseling about IUD contraception with audio-visual media (11). The results of Amelia's research (2020) show that there is an influence of video media counseling to increase knowledge and attitudes about Intra Uterine Devices (IUD) contraceptives in couples of childbearing age (12). There are also the results of Sari's research (2016) showing that there is a relationship between knowledge and maternal attitudes in choosing long-term contraceptive methods in WUS (13).

RESEARCH METHODS

This research uses a type of quantitative research with a Pre-experimental research design (pre-post test design one group). The design of this study used one group, previously conducted a pre-test to measure the knowledge and attitudes of women of childbearing age and then given intervention through bookledy media on women of childbearing age in the work area of the Naras Health Center in Pariaman City and then carried out a post test.

The population in this study was all women of childbearing age in the working area of Naras Health Center in Pariaman City.

The sampling technique in this study is by means of Acidental sampling. with a total sample of 36 people.

Inclusion criteria 1). Married women of childbearing age 2). Can follow any type of birth control, except IUD and 3) birth control Husband is not MOP.

Exclusion criteria 1). Not present at the time of the study 2). Not willing to be a respondent.

The research instrument used in this study is a questionnaire, the questionnaire used consists of three parts, namely containing demographic data, questions to find out knowledge and statements to find out respondents' attitudes about IUD contraception.

Data were analyzed univariately and bivariately. Univariate data represent the frequency distribution of sample characteristics of knowledge, age, education, and occupation. Numerical data analysis includes standard deviation, mean value, at 95% CI and for categorical includes sum and percentage. while bivariate is aimed at testing the significance of the effect of booklet media use on increasing knowledge and attitudes about IUD contraception in women of childbearing age. Before bivariate analysis, data normality test was carried out using the Shapiro test, obtained normally distributed data.

RESEARCH RESULTS
Univariate Analysis
Table 1
Characteristics of respondents by age

Variable	Mean	Min-Max	C195%
age	31.64	21 - 42	29,94;33,94

Table 1 shows that the average WUS is 32 years old with an SD of 5.03 years. The youngest WUS age is 21 years old and the oldest is 42 years old. It is believed that 95% of the average age of WUS is in the range of 29.94 to 33.94 years.

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Table 2
Characteristics of Respondents Based on Education and Occupation

Variable	F	%
Education		
SMP	1	2.8
SMA	22	61.1
PT	13	36.1
Work		
Not working	26	72.2
Work	10	27.8

Table 2 shows that most women of childbearing age (61.1%) have high school education (61.1%) and most jobs (72.2%) are unemployed.

Table 3
Average knowledge before and after health promotion using booklet media

Variable	N	Mean	SD	Min-max	C1 95%
Knowledge Before	36	5.19	1.925	2 – 9	4.54 ; 5.85
Knowledge After	36	7.22	1.807	3 – 7	6.61 ; 7.83

Table 3 shows the average knowledge score of women of childbearing age after health promotion interventions using booklets on IUD contraception from 5.19 to 7.22, with SD from 1,925 to 1,807. The minimum value is from 2 to 3, while the maximum value is from 9 to 10. It is believed that 95% of WUS knowledge averages from a range of 4.54 to 5.85 to 6.61 to 7.83.

Table 4
Average attitude before and after health promotion using booklet media

Variable	N	Mean	SD	Min-max	C1 95%
Attitude Before	36	28.67	2.986	22 - 35	27.66 ; 29.68
Attitude After	36	33.64	2.554	27 - 39	32.77 ; 34.50

Table 4 shows the average attitude score of women of childbearing age after health promotion interventions using booklets on IUD contraception of 4.97 from 28.67 to 33.64, with SD from 2,986 to 2,554. The minimum score is from 22 to 35, while the maximum value is from 27 to 39. It is believed

that 95% of WUS attitudes average from the range of 27.66 to 29.68 to 32.77 to 34.50.

Bivariate Analysis
This study was conducted data normality test with shapiro because the sample amounted to less than 50 people. The test results show normally distributed data. This analysis was conducted to see the effect of health promotion on knowledge and attitudes before and after the intervention. Normality data indicates normally distributed data tested using paired t test.

Table 5
The effect of booklet media use on knowledge and attitudes about IUD contraception in women of childbearing age

Variable	N	Mean	Δ Mean	Sig. (2-Tailed)
Knowledge	36	7.22	2.03	0.000
Attitude	36	33.64	4.97	0.000

Based on table 5, the average knowledge differentiation before and after was 2.03 while the average attitude differential before and after was 4.97, obtained p value = 0.000 ≤ 0.05, then H0 was rejected using a confidence level of 95%. This shows that there is an influence of the use of booklet media on knowledge and attitudes about IUD contraception in fertile women in the Working Area of Naras Health Center in Pariaman City.

DISCUSSION
Characteristics of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City
This study showed that the average age of women of childbearing age was 32 years with SD 5.03 years. The youngest age is 21 years old and the oldest age is 42 years old, it is believed that the average age of women of childbearing age is in the range of 29.94 to 33.94 years, while education shows that women of childbearing age are mostly high school educated, this is in line with Ajizah research (2020) the characteristics of respondents based on education in the intervention group of some people are high school and the work of most women of childbearing age is not working (14). this is in line with Indarwati's research (2018) of 265 respondents, most of which are as many as 185 people are not working (15).

Based on the results of Sari's research (2015), it is known that some people aged 30 years and under prefer non-MJKP contraceptives (Long-

Term Contraceptive Methods) while women aged 30 years and over prefer MJKP contraceptives. This happens for reasons of birth control itself, for women who are over 30 years old have the goal of birth control to terminate pregnancy. In addition, women with a high level of education prefer MJKP contraceptives. This can happen because of the consideration that highly educated women have a good insight or understanding of the benefits and risks of choosing safe and long-term contraceptives (16). Based on research conducted by Subiyatun et al., (2012) that women who have jobs will prefer MJKP because of the demands of their work (17).

Knowledge of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City About IUD Contraception

This study increased knowledge before the intervention which was 5.19 and after the intervention which was 7.22. This is in line with Punamasari's research (2021) after counseling with the help of booklets on IUD contraception, there was an increase in maternal knowledge marked by many mothers who have good and very good knowledge. This researcher's assumption is due to the ability of diverse ways of thinking possessed between one mother and another. This makes a difference in how to understand the information provided by the researcher, but overall there is a difference in the average knowledge before and after respondents after being given an intervention using booklet media (10).

The results of Hidayatulloh's research (2017) showed that health education affects mothers' knowledge about IUD birth control, respondents' knowledge has increased about IUD birth control after receiving health education in Plosorejo Hamlet, Jagir Village, Sine District, Ngawi Regency (18). *The results of the study (Putri et al., 2019) showed an increase in knowledge after being given an intervention with booklet media, with a significant value on knowledge p = 0.000. The results of the data analysis obtained mean that there is an influence of the use of booklet media on pregnant women's knowledge about exclusive breastfeeding using the Wilcoxon Sign Test* (19).

Anderi (2017) showed that there was an increase in cadres' knowledge scores and skills after being given training. Average knowledge and attitude scores improved after nutrition counseling by volunteers (20). The results of Nasution's research (2022) show that the majority of WUS knowledge about Fluor Albus before being given Health Education at the Patumbak Health Center in

2021 is lacking, the majority of WUS knowledge about Fluor Albus after being given Health Education at the Patumbak Health Center in 2021 is the majority good. So it can be concluded that there is an influence of Health Education on WUS Knowledge about Fluor Albus at the Patumbak Health Center in 2021 (21).

Apriani's research (2015) states that good knowledge will produce a positive and long-lasting attitude, but on the contrary if the knowledge is lacking, the attitude will be negative (22). This is according to research conducted by Indrawati (2018) that respondents who have good respondents will have a positive attitude (23). According to Notoatmojo (2018), knowledge is the result of human senses or the result of knowing a person about objects through the senses they have. By itself, the time of sensing to produce knowledge is greatly influenced by the intensity and perception of objects. Some of a person's knowledge is acquired through the sense of hearing and the sense of sight.

According to Notoatmojo (2018) Knowledge is the result of knowing and this occurs after someone senses a certain object. This sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is acquired through the eyes and ears.

Attitudes of Women of Childbearing Age (WUS) in the Working Area of Naras Health Center in Pariaman City About IUD Contraception

This study saw an increase in attitudes before the intervention which was 28.67 and after the intervention which was 33.64. This is in line with Amelia's research (2020) showing that there are differences in mothers' attitudes before and after counseling. Mothers who receive counseling are expected to understand more about the information provided, so as to increase mothers' knowledge and attitudes about counseling materials, namely Intra Uterine Devices (IUD) contraceptives (12). This is also in line with Notoadmodjo (2018) which states that one of the factors that affect knowledge is information. The new information a person receives will provide a new cognitive foundation for the formation of this knowledge. The assumption of this study is due to the ability of various ways of thinking possessed between one mother and another. This makes a difference in how to understand the information provided by researchers, but overall when viewed from the results of data processing, there are differences in average attitudes before and after intervention using booklet media.

The results of Wardani's research (2019) showed that there was a significant influence between counseling and respondents' attitudes in choosing a post-placental IUD (24). According to Notoadmodjo (2018), attitude is a reaction or response of someone who is still closed to a stimulus or object. Willis (2009) suggests that the success of counseling is closely related to the counselor's attitude in providing information such as; Have a sense of empathy, warmth, positive appreciation (respect), anxiety control, and communication patterns. According to Fadhillah (2020) quoted by Fitri (2018), changing attitudes can be done by coaching through health education, because it can increase knowledge so that it can respond to attitudes leading to better behavior (25).

The Influence of Booklet Media on the Knowledge and Attitudes of Women of Childbearing Age About IUD Contraception

Based on the results of the study, there are data on knowledge and attitudes using the paired t test obtained a value of $p = 0.00 \leq 0.05$ using a confidence level of 95%, then Ha accepted means that there is an influence on the use of booklet media on knowledge and attitudes about IUD contraception in fertile women in the Working Area of the Bentiring Health Center in Bengkulu City. This is in line with Mursida's research (2016) Wilcoxon's analysis shows that at the level of significance value is obtained for PHBS knowledge and for PHBS attitudes so that there is a significant influence of health education with booklet media on increasing knowledge and attitudes about PHBS in students at SMP Negeri I Palibelo. There are also the results of Utariningsih's research (2018) there is an increase in knowledge after being given a booklet and there is also an increase in attitudes (8).

According to Rosa's research (2019), the results of statistical analysis show that health education with booklet media is more effective than leaflet media to increase knowledge and attitudes so that there is an influence of health education with booklet media on increasing knowledge and attitudes in third trimester pregnant women about exclusive breastfeeding at the Gedongtengen Health Center Yogyakarta City in 2019 (26). The results of Dwi Sugiarti's (2022) research were analyzed using Wilcoxon to determine the effect of booklets on knowledge and paired t-tests to determine the effect of booklets on respondents' blood pressure (3).

Al Gafi's research (2020) shows that booklet media affects knowledge and attitudes about cigarettes in students at SMA Negeri 13 Medan.

This influence can be seen through the average value of students' knowledge and attitudes before being treated with booklet media obtained 4.95 and 29.81 after being treated with booklet media to 8.38 and 40.00 which means that students' knowledge and attitudes increased after being treated with booklet media (27).

CONCLUSION

There is an influence on the average knowledge and attitudes of women of childbearing age before and after being given education using bookledy media about IUD contraception in the work area of the Naras Health Center in Pariaman City.

SUGGESTIONS

Women of childbearing age need to increase knowledge about IUD birth control by attending counseling held by health workers and seeking information about IUD birth control at nearby health service places, such as maternity clinics, Private Practice Midwives (BPS), Puskesmas, and Hospitals.

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Ekta Puspita Sari

THE EFFECT OF GYM BALL COACHING ON PROGRESS PRIMIGRAVIDA MOTHER'S DELIVERY

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ABSTRAK : PENGARUH PELATIHAN BOLA GYM TERHADAP KEMAJUAN PERSALINAN IBU PRIMIGRAVIDA

Persalinan merupakan proses pengeluaran janin pada kehamilan cukup bulan yaitu sekitar 37-42 minggu dan lahir secara spontan dengan presentasi belakang kepala yang berlangsung selama 18-24 jam tanpa adanya komplikasi. Angka Kematian Ibu (AKI) merupakan salah satu indikator penilaian status kesehatan. Jumlah kematian ibu yang dihimpun dari pencatatan program kesehatan keluarga di Kementrian Kesehatan meningkat setiap tahunnya. Pada tahun 2021 menunjukkan 7.389 kematian di Indonesia. Jumlah ini menunjukkan peningkatan dibandingkan tahun 2020 sebesar 4.627 kematia. Gym ball adalah cara menambah ukuran rongga pelvis dengan menggoyang panggul di atas bola yang sangat efektif membantu merespon rasa sakit dan mengurangi lama persalinan kala I fase aktif. Penelitian ini bertujuan untuk mengetahui Pengaruh bimbingan gym ball terhadap kemajuan persalinan pada ibu primigravida kala I Fase Aktif di PMB Eka Santi Prabekti Tahun 2023. Penelitian ini menggunakan metode kuantitatif dengan desain penelitian pre eksperimental yang menggunakan rancangan intract group comparison. Jumlah Sampel 50 orang ibu bersalin yang dibagi dalam dua kelompok yaitu kelompok yang tidak dilakukan bimbingan gym ball sebanyak 25 orang dan kelompok yang dilakukan bimbingan gym ball 25 orang. Instrumen penelitian berupa lembar observasi dan partograf. Metode pengumpulan data ini menggunakan data primer yang dilakukan pada bulan 05 Juli – 10 September 2023. Hasil penelitian ini menunjukkan bahwa kemajuan persalinan ibu pada kelompok yang tidak dilakukan bimbingan gymball yaitu 424,72 menit, dan pada kelompok yang dilakukan bimbingan gymball yaitu 265,20 menit. Simpulan terdapat pengaruh bimbingan gymball terhadap kemajuan persalinan ibu bersalin primigravida kala I fase aktif dibuktikan dengan Uji-T nilai p-value = 0,000 (p-value < 0,05).

Key words: bimbingan gym ball, ibu bersalin, kemajuan persalinan

ABSTRACT

Childbirth is the process of expelling a fetus at term pregnancy, which is around 37-42 weeks and is born spontaneously with a posterior presentation that lasts for 18-24 hours without any complications. Maternal Mortality Rate (MMR) is an indicator for assessing health status. The number of maternal deaths collected from family health program records at the Ministry of Health increases every year. In 2021 there were 7,389 deaths in Indonesia. This number shows an increase compared to 2020 of 4,627 deaths.

Gym ball is a way to increase the size of the pelvic cavity by shaking the pelvis on the ball which is very effective in helping to respond to pain and reducing the length of labor during the active phase of the first stage.

This research aims to determine the effect of gym ball guidance on the progress of labor in primigravida mothers during the first active phase at PMB Eka Santi Prabekti in 2023.

This research uses quantitative methods with a pre-experimental research design using an intract group comparison design. The sample size was 50 mothers giving birth who were divided into two groups, namely the group that did not receive gym ball guidance, 25 people and the group that received gym ball guidance, 25 people. The research instruments were observation sheets and partographs. This data collection method uses primary data carried out in the months 05 July – 10 September 2023. The results of this study show that the progress of maternal labor in the group that did not receive gymball guidance was 424.72 minutes, and in the group that received gymball guidance it was 265.20 minutes. minute.

The conclusion is that there is an influence of gymball guidance on the progress of labor of primigravida mothers in the first active phase, proven by the T-test with a p-value = 0.000 (p-value < 0.05).

Key words: gym ball guidance, mother giving birth, labor progress

INTRODUCTION

Childbirth is the birth of the baby, placenta and amniotic membranes from the uterus to the outside world. Normal delivery occurs at term without any complications. Labor begins when the uterus contracts and causes changes in the cervix (opening and thinning) and ends with the complete birth of the placenta (Affandi, 2017).

The birth process is a physiological thing, one of which is influenced by power consisting of the mother's breasts and the ability to push. The force of the mother and her pushing can speed up the opening of the cervix and encourage the fetus to come out. Another factor that influences the length of labor is the condition of the pelvis. Pelvic deformities can hinder the birth process. Apart from that, the position and presentation of the fetus is also an important part of the birthing process. 98% of deliveries occur with the fetus presenting behind the head. In this case, it means that a balance is needed between the size of the fetus, especially the upper part and the pelvic cavity. So if there is an abnormality in the location, position and presentation of the fetus, there will be difficulties during the birthing process (Manuaba, 2010). The progress of normal labor is closely related to the suitability of appropriate labor management by the provider, whereas management that is not in accordance with the mother's needs can cause obstruction of labor (long labor) or obstruction, which can cause loss of maternal body fluids, fatigue, uterine rupture, post-natal bleeding. saline and infection occurs in the mother. Therefore, prevention and early detection of prolonged labor will significantly prevent complications (Raidanti & Mujianti, 2021).

According to data from the World Health Organization (WHO) in 2017, an estimated 810 women died related to birth and pregnancy, 295 thousand women died throughout 2017, 90% of all causes of maternal death occurred in developing countries between 2000-2017, the maternal mortality ratio decreased by as much as 38% worldwide. The cause of maternal death is the result of complications during pregnancy and childbirth (Indonesian Ministry of Health, 2018).

Data taken from the Ministry of Health of the Republic of Indonesia in 2017, currently the Maternal Mortality Rate (MMR) in ASEAN countries has reached the position of 40-60/100,000 live births, while in Indonesia based on the 2015 inter-census population survey (SUPAS) it is still in the position 305/100,000 live births, this is very different from Singapore which is 2-3 MMR/100,000 births, this shows that the MMR in Indonesia is still quite high. MMR in Indonesia experienced a slight decline from 4999 cases down to 4912 in 2016 and in 2017 it decreased to 1712 MMR cases. The IDHS noted that in the births 5 years before the survey, prolonged labor was the most frequently reported (41%) by women 15-49 years.

Data from the Ministry of the Republic of Indonesia, the number of mothers giving birth in Indonesia in 2020 was 5,043,078 people, 23.2% of whom experienced birth complications (Indonesian Ministry of Health, 2020). The National Riskesdas Report (2019) found several causes of the biggest birth complications, namely premature rupture of membranes (5.6%), prolonged labor (4.3%), fetal position (3.1%), umbilical cord entanglement (2.9%) , hypertension (2.7%), bleeding (2.4%), and others (4.6%).

The progress of normal labor is closely related to the suitability of appropriate labor management by the provider, whereas management that is not in accordance with the mother's needs can cause labor obstruction (long labor) or obstruction, which can lead to loss of maternal body fluids, fatigue, uterine rupture, postpartum bleeding and infection. to mother. Therefore, prevention and early detection of prolonged labor will significantly prevent complications (Raidanti & Mujianti, 2021)

The cause of complications in childbirth which causes increased mortality and morbidity in the mother and fetus is prolonged labor. Mothers with prolonged labor are at greater risk of bleeding due to uterine atony (33%), laceration of the birth canal (26%), infection (16%), fatigue (15%) and shock (10%). Meanwhile, in the fetus it can increase the risk of severe asphyxia, cerebral trauma, infection and injury due to procedures (Wiliandari, Meri & Sagita, 2021). The incidence of prolonged labor is caused by several factors such as fetal position, pelvic abnormalities, histology abnormalities, incorrect delivery, large fetus, congenital abnormalities, grand multipara, and premature rupture of membranes (Umu Qonitun, 2019)

One of the efforts to prevent prolonged labor is with gym ball guidance which supports labor to proceed physiologically. Siregar's research in 2020 entitled the effect of implementing the birth ball technique on labor progress revealed that the average progress of labor for birth ball status implemented and not implemented was different where birth ball status was implemented 224.3 minutes faster compared to birth ball status not implemented . With a confidence level of 95%, a p-value of 0.0000 <0.05 is obtained, which means that

there is a significant influence with the implementation of the birth ball technique on the progress of labor (Siregar et al., 2020).

Birth ball means a birth ball that can be used by mothers in the 1st stage in a position that helps the progress of labor (pelvic rocking movement). The advantages of using a birth ball are that it increases blood flow to the uterus, placenta and baby, relieves pressure and can increase pelvic output by as much as 30%, provides comfort for the knees and ankles, provides counter-pressure on the perineum and thighs. This posture works. gravity pushes the baby down thereby speeding up the birthing process (Tri Maryani, 2017).

Gym Ball is a physiotherapy ball that helps mothers in the first stage of labor. The Influence of Gym Ball Guidance on the Progress of Primigravida Mothers' Labor JOURNAL OF MOTHER&CHILD CARE | Volume 6 | Number 2 | August 2021 85 and can be used in various positions. The elasticity and curvature of the ball stimulates the receptors in the pelvis, so by applying gravity while increasing the release of endorphins, the movement of sitting on the ball and stone provides a feeling of comfort and promotes the progress of labor. Person responsible. Releases endorphins. (Kurniawati et al., 2017)

During the first stage of labor, do gym ball exercises by sitting on the ball then slowly swinging and shaking your hips back and forth, right and left, and in circles. This exercise is useful for helping uterine contractions be more effective and speeding up the baby's descent through the pelvis. The pressure of the baby's head on the cervix remains constant when the mother gives birth in an upright position so that cervical dilatation becomes faster. The pelvic muscle ligaments relax, and the pelvic area becomes wider, making it easier for the baby to descend to the pelvic floor (Muthoharoh et al., 2019).

This study aims to determine the effect of gymball guidance on the progress of labor of primigravida mothers in the active phase of the first stage at PMB Eka Santi Prabekti. In this study, it was limited to primigravida mothers giving birth during the first active phase by looking at the progress of labor based on the length of time. The process of assessing the progress of labor is carried out on primigravida mothers in the active phase of the first stage from opening 4 cm who are given gym ball guidance for 30 minutes and reassessing their progress up to opening 10 cm (there are symptoms in the second stage) through internal examination.

RESEARCH METHODS

This research uses a quantitative research approach using a pre-experimental research design which uses an intract group comparison design, namely to determine the effect of an action on the group that was treated with the gym ball guidance method and the group that was not given gym ball guidance as the control group.

The independent variable in this study is gym ball guidance while labor progress is the dependent variable. In research the total population used as the sample, there are 50 populations that used as the sample. The population in this study were all mothers who gave birth in the last month with a total of 50 mothers who gave birth normally at PMB Eka Santi Prabekti in 2023. The sample was taken using a total sampling technique, namely all mothers who gave birth at PMB. Eka Santi Prabekti consisted of 50 people who were divided into 2 groups, namely 25 people in the group who did gym ball and 25 people in the group who did not do gym ball who met the inclusion and exclusion criteria. The inclusion criteria in this study were mothers who were pregnant at term, primigravida mothers who would give birth in the first stage of the active phase, no comorbidities during pregnancy or a history of complications during the prenatal period. The inclusion criteria in this study were mothers who refused to become respondents. Maternity mothers who were uncooperative. Primigravid mothers with risks/complications. The research instruments were observation sheets and partographs.

This data collection method uses primary data which was carried out in the months 05 July – 10 September 2023. Univariate analysis creates a distribution or representation of each variable. This analysis was carried out to explain the research variables by tabulating the frequency and distribution of data in table format. Bivariate analysis was carried out on two variables to determine whether there was a relationship (correlation) or difference (Notoatmodjo, 2018). This was done to determine the effect of gym ball guidance on the progressivity of labor of primigravida mothers during the first active phase at PMB Eka Santi Prabekti District. Central Lampung.

This study used paired T-test analysis which was used to determine the effect of gym ball guidance on the progress of labor in the group of pregnant women who were not given gym ball guidance and the group of pregnant women who received gym ball guidance with the condition that the data had to be normally distributed. The first step taken before carrying out the Paired T-Test is

to carry out a normality test by looking at the Shapiro Wilk Test (n 0.05 which means the data is normally distributed and if p < 0.05 then the data is not normally distributed, then it is necessary to carry out data transformation, if it has Data transformation was carried out but the data distribution was still not normal, so it was continued using an alternative statistical test, namely the Wilcoxon Test (Dahlan, 2015).

RESEARCH RESULTS

Table 1
Frequency distribution of labor progress in the group of women giving birth who did not receive gym ball guidance

Variable	N	Min	Max	Mean
Are not donegym ball guidance	25	254 minute	732 minute	424.72 minute

Table 1 shows that of the 25 mothers giving birth in the group who were not given gym ball guidance, the average progress in labor was 424.72 minutes, with a minimum value of 254 minutes and a maximum value of 732 minutes.

Table 2
Frequency Distribution of Labor Progression in the Group of Mothers Who Underwent Gym Ball Guidance

Variable	N	Min	Max	Mean
Gymball guidance is carried out	25	150 minute	360 minute	265.20 minute

Table 2 shows that of the 25 mothers giving birth in the group given gym ball guidance, the average progress in labor was 265.20 minutes, with a minimum value of 150 minutes and a maximum value of 360 minutes.

Table 3
Effect of Gym Ball Guidance on the Progress of Labor in the Group of Primigravid Mothers in the 1st Stage of the Active Phase

Group Category	N	Mean	Std Deviation	Mean Difference	p-value
There is no gym ball guidance	25	254 minute	123,477 minutes	159,520 minute	0,000
Gym ball guidance is provided	25	150 minute	64,622 minute		

DISCUSSIONS

Based on data from research results regarding the effect of gym ball guidance on the progress of labor in first stage primigravida mothers at PMB Eka Santi Prabekti in 2023, it was found that group thatWithout gym ball guidance, the number of 25 people had an average labor progress of 254 minutes with a standard deviation of 123.477 minutes. Meanwhile, in the group that received gym ball guidance, 25 people experienced an average labor progress of 150 minutes with a standard deviation of 64.622 minutes. This research uses the T-test Independent sample Paired T-test was used to determine the effect of gym ball guidance on the progress of labor in the group that received gym ball guidance and those that did not receive gym ball guidance. The condition is that the data must be normally distributed. The results of the analysis using a paired samples test with a confidence level of 95% show a p-value = 0.0000 < 0.05, which means that there is an influence of gym ball guidance on the progress of labor of primigravida mothers during the first active phase at PMB Eka Santi Prabekti in 2023.

This is in line with Siregar's research which states that there is a difference in the progress of labor between women giving birth with birth ball status and those without birth ball status. Where the birth ball status was carried out 224.3 minutes faster compared to the birth ball status which was not carried out. With a confidence level of 95%, a p-value of 0.0000 <0.05 is obtained, which means that there is a significant influence with the implementation of the birth ball technique on the progress of labor (Siregar et al., 2020). Other research which is in line with this research states that the effectiveness of the birth ball exercise on the length of the second stage is strong (Surtiningsih, 2016). This is in line with research Anik based on the results of research from 16 respondents after giving treatment using the birthing ball technique, almost all 10 people (63%) experienced lowering of the fetus in Hodge III and a small number of respondents, 6 people (37%) in Hodge IV (Purwati, 2020). This shows the influence of giving the birth ball technique (Birting Ball) on the lowering of the fetus and the intensity of pain in mothers during the 1st Stage of the Active Phase.

Various efforts can be made to reduce pain during the first stage of labor, non-pharmacological efforts such as using a gym ball or peanut ball are simple techniques that can be done (Dianita Primihastuti, 2021).

The results of this study are also in line with (Wiliandari & Sagita, 2021) which proves that there is an influence of birth ball therapy in primigravida mothers on the length of the first stage of labor at PMB Meri Wiliandari and PMB Sri Wartini with a p-value of 0.03 < 0.05. Various physiological efforts are made to prevent prolonged labor, such as pregnancy exercises, deep breathing techniques and rebozo. Other efforts to prevent prolonged labor include pelvic rocking with a birthing ball which supports labor so that it can proceed physiologically. This is also a method that really helps respond to pain in an active way and reduces the length of labor during the first active phase. Sitting straight on the ball with the earth's gravitational force will help the fetus or the lowest part of the fetus to immediately descend into the pelvis so that the birth time is shorter (Hidajatunnikma, 2020).

The results of research conducted by Sutisna, (2021) show that progress in labor occurs when using a gym ball with an average of 150 minutes or around 2 hours 30 minutes [16] (Sutisna, 2021).Based on theorystated by Aprilla who revealed that the first stage of labor will vary for each mother. The more relaxed a mother feels and the more she moves, the shorter the time it will take to reach complete opening (Aprilia, 2014). At the start of labor, mothers should empower themselves by not just curling up in bed. Changing positions every half to two hours will really help the labor process. (Aprilia, 2014). The pain during contractions will make the mother feel uncomfortable, by applying pelvic rocking with a birth ball the intensity of the mother's pain can be reduced (Niluh Nita. Silfia, Anna Veronica Pont, 2020).

This is also in line with research Indrayani stated that the mother's position also greatly influences the anatomical and physiological adaptation of childbirth (Indrayani & Riyanti, 2018). The upright position also provides many benefits. Changing positions provides comfort, reduces pain, and improves blood circulation. Upright positions include sitting on a gym ball (pelvic rocking), standing, squatting, walking. The upright position allows for lowering of the lower part of the fetus. Some of the benefits of a birth ball include being able to reduce the incidence of elongated first stages, speeding up the opening of the cervix,

stimulating uterine contractions, widening the diameter of the pelvis and speeding up the descent of the fetal head.

This is also in line with the hypno birthing theory (2014). In the birthing process, the ball can be an important tool, and can be used in various positions. Sitting upright on the ball while pushing, such as swinging or making pelvic rotation movements, can help the process of fetal descent. The ball provides support to the perineum without much pressure and helps keep the fetus parallel to the pelvis. The position of sitting on the ball is assumed to be similar to squatting, opening the pelvis, thereby helping speed up the process of childbirth. Gentle movements on the ball greatly reduce the pain of contractions. With the ball placed around the bed, the client can stand and lean comfortably on the ball, pushing and swinging the pelvis for mobilization.

Different from mothers who just lie down During the first stage, the pressure from the head on the cervix will be greater in the posterior cervix (cervix at 6 o'clock) so that in the end there are many cases of anterior cervical lips which make the labor process longer and more painful. (Aprilia, 2014)

Using a gym ball helps speed up labor because it helps the pelvis open, a gym ball can also increase blood flow to the uterus, placenta and baby. Reduces pressure and increases pelvic outlet by 30%. Creates a comfortable feeling in the knee and ankle area. Provides counter pressure in the perineum and thighs. Through gravitational force, the birth ball also pushes the baby down so that the birthing process becomes faster. (Muthoharoh et al., 2019) Zaky's research results show that there is a relationship between the implementation of the birth ball exercise and the length of the first stage (Zaky, 2016)

Several studies abroad, one of which was research conducted in Taiwan, showed the results that the group of women who did gym ball exercise experienced a shorter first stage of labor, lower use of analgesics, and a lower incidence of caesarean section. In terms of satisfaction with use, 84% stated that the gym ball could relieve contraction pain, 7% could relieve back pain, and 95% stated that they were comfortable when using the gym ball (Muthoharoh et al., 2019)

Another similar study was expressed by (Yuriati & Suryana, 2020) with the results of their research which concluded that there was an influence of birth exercise on the smoothness of labor with the results in the group of mothers who did not do birth ball exercise with a total of 25

people, the average birth smoothness was 252 minutes with standard deviation of 123.475 minutes. Meanwhile, the group that carried out the birth ball exercise experienced a smooth delivery of 148 minutes with a standard deviation of 64.620 minutes. The results of the analysis using a paired samples test with a confidence level of 95% show a p-value of _0.000 < 0.05, which means that there is an influence of birth ball exercise on mothers giving birth. The position of the mother in labor greatly influences the anatomical and physiological adaptations to childbirth.

In This research shows the effect of gym ball guidance on the progress of labor. Where the gym ball technique can help mothers in labor to shorten the progress of labor at PMB Eka Santi Prabekti. Mothers who gave birth said they were comfortable and relaxed in facing labor because the help of the Gym ball slightly reduced the pain during contractions. The enthusiasm and enthusiasm of mothers in labor also really helps the mother's psychology in processing pain and creating a positive atmosphere for the mother so that the uterus can contract optimally.Based on several research results, researchers assume that the effect of gym ball guidance on the progress of labor is very effective in shortening the length of the first stage of labor in primigravida.

CONCLUSION

The conclusion of this research is that there is an influence of gym ball guidance on the progress of labor of primigravida mothers in the first active phase as proven by the T-test with a p-value = 0.000 (p value < 0.05).

SUGGESTION

There are some suggestion after finish this research, the first, it is for Health Workers. It is hoped that the birthball intervention can be an alternative for midwives in providing midwifery care for childbirth to improve the skills of midwives in assisting normal births in order to reduce the morbidity and mortality rates of pregnant women and neonates. The second, it is for Health Facilities. It is recommended that all health facilities provide gym ball services to pregnant women from the third trimester as part of the birth preparation activities. The third, it is for educational institutions. It is hoped that it can be used to produce superior midwives as community mobilizers in reducing the morbidity and mortality rates of pregnant women and neonates. Add information and increase insight and serve as additional library material for the Wahana Husada Bandar Jaya Midwifery Academy.

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THE EFFECT OF OXYTOCIN MASSAGE ON THE ADEQUACY OF BREAST MILK IN BABIES IN THE WORKING AREA OF THE KEDURANG HEALTH CENTERSOUTH BENGKULU

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ABSTRAK

Latar Belakang : Penurunan kecukupan ASI pada bayi pada hari-hari pertama setelah melahirkan dapat disebabkan oleh kurangnya rangsangan hormone prolaktin dan oksitosin yang tidak dapat mengalir lancar. Sehingga banyak ibu memberikan susu formula pada bayinya untuk memenuhi kebutuhan nutrisi pada bayi tersebut.

Tujuan : penelitian ini adalah untuk mengetahui Pengaruh Pijat Oksitosin Pada Ibu Nifas terhadap kecukupan ASI pada bayi di wilayah kerja Puskesmas Kedurang tahun 2023.

Metode : Penelitian yang digunakan *quasi eksperiment* dengan pendekatan *pretest & postest without kontrol group desain,* Metode pengambilan sampel total *sampling*.

Hasil : Hasil analisa univariat sebelum diberikan pijat oksitosin hampir seluruh 28(93,3%) pengeluaran ASI tidak cukup. Sesudah diberikan pijat oksitosin sebagian besar 23(76,7%) kecukupan ASI pada bayi cukup. Hasil analisa bivariat menunjukkan ada pengaruh pijat oksitosin pada ibu nifas terhadap kecukupan ASI pada bayi di Wilayah Kerja Puskesmas Kedurang Tahun 2023

Kesimpulan : ada Pengaruh Pijat Oksitosin Pada Ibu Nifas terhadap kecukupan ASI pada Bayi di Puskesmas Kedurang (*p value* < 0,050)

Saran: Diharapkan Bidan bisa mengoptimalkan pemberian informasi mengenai upaya-upaya peningkatan kecukupan ASI pada bayi dengan cara melakukan pijat oksitosin.

Kata Kunci : Pijat Oksitosin, Kecukupan ASI

ABSTRACT

Background: The decrease in the adequacy of breast milk for babies in the first days after giving birth can be caused by a lack of stimulation of the hormones prolactin and oxytocin which cannot flow smoothly. So many mothers give formula milk to their babies to meet the baby's nutritional needs.

Purpose: this research is to determine the effect of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center working area in 2023.

Method: The research used a quasi-experimental approach with a pretest & posttest without control group design, total sampling method.

Results: The results of univariate analysis before being given oxytocin massage, almost all 28 (93.3%) expressed insufficient breast milk. After being given oxytocin massage, the majority of 23 (76.7%) babies had enough breast milk. The results of bivariate analysis show that there is an influence of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center Work Area in 2023

Conclusion: There is an effect of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies at the Kedurang Community Health Center (p value < 0.050)

Suggestion: It is hoped that midwives can optimize the provision of information regarding efforts to increase breast milk adequacy for babies by carrying out oxytocin massage.

Keywords: Oxytocin Massage, Sufficiency of breast milk

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INTRODUCTION

Providing breast milk (ASI) is very important for a baby's growth. Considering the importance of breast milk, the Indonesian government has issued Government Regulation (PP) Number 33 of 2012 concerning exclusive breastfeeding, namely the mother's obligation to breastfeed her baby from birth until the baby is 6 months old. However, what happens in the field is that many mothers experience problems when breastfeeding after giving birth until the baby is 6 months old. Some common problems are cracked nipples, sore nipples when breastfeeding, breast swelling, pain in surgical wounds, difficulty in taking the right position, child illnesses, maternal illnesses, breast abscesses and insufficient breast milk for babies. Regarding the insufficient adequacy of breast milk for babies, the data shows that mothers with problems are 19.5% at 0-7 days, 15.9% at 8 - 29 days, and 11.2% at 1-6 months after breastfeeding. (Babakazo, Bosonkie, Mafuta, Mvuama, & Patano, 2022). The importance of breastfeeding still depends on the factors that influence breastfeeding. Several factors that can influence the adequacy of breast milk for babies are explained by Lestari, Fatimah, & Ayuningrum (2021), namely food intake, psychology, use of contraception, physiological anatomy of the breast, breast care, rest patterns, baby sucking factors, birth weight and age. pregnancy at birth. The cause of irregular milk production on the first day after giving birth can be caused by a lack of stimulation of the hormone oxytocin and the mother's physiological condition which plays a big role in the smooth flow of breast milk. One massage that can be done to facilitate breast milk is oxytocin massage. Oxytocin massage is one way to speed up the release of breast milk by using non-pharmacological measures by massaging the area around the back which aims to stimulate the release of breast milk so that the mother will feel satisfied, happy, confident and other positive feelings will create an oxytocin reflex. (Kholisotin, Munir, & Astutik, 2019). Oxytocin massage is carried out for the first time at the 6-hour postpartum visit for mothers who complain that their baby is not getting enough breast milk. Oxytocin massage is done twice a day to increase the adequacy of breast milk for the mother's baby.

RESEARCH METHODS
Research design

This type of research with the research design chosen by the researcher is Quasi Experimental Design or what is usually called quasi-experiment. The research design used was quasi-experimental using a pretest & posttest approach without a control group design. The population in this study was 30 patients who gave birth in the Kedurang Community Health Center Work Area in January-February 2024. The sampling technique was a total sampling of 30 people. Before the oxytocin massage is carried out, a pre-test is carried out using a questionnaire, and after the oxytocin massage is carried out, the test is carried out again using a questionnaire regarding signs that the baby is getting enough breast milk. Oxytocin massage is carried out starting from 6 hours post partum, carried out 2 times for 7 days with a duration of 5 minutes. After the data is collected, data processing and data analysis are carried out including Univariate and Bivariate data analysis.

RESEARCH RESULTS
Respondent Characteristics
Table 1
Frequency distribution of characteristics of postpartum mothers in the Kedurang Community Health Center Working Area in 2023

Variabel	Ammount	Persentase (%)
Age		
<20 year	11	36,7
20-35 year	19	63,3
Work		
Housewife	18	60
Work	12	40
Education		
Base	11	36,7
Secondary	14	46,7
Height	5	16,7
Amount children		
1	12	40
2	15	50
>3	3	10

Source: Research data on checklist for signs that a baby is breastfed (2024)

The results of table 1 obtained that most postpartum mothers (36.7%) aged 20-35 years, most 18 (60%) were domestic workers, almost half 14 (46.7%) had completed secondary education and half 15 (50%) had children 2.

Analisis Univariat

the results of table 2 show that almost all 28 (93.3%) babies had insufficient breast milk before being given oxytocin massage.

Table 2
Frequency distribution of adequate breast milk for babies before being given oxytocin massage in the Kedurang Community Health Center Work Area in 2023

Adequate Breast Milk For Abies	Ammount	Persentase (%)
Enough	2	6,7
Not enough	28	93,3

Source: Community Health Center Research Data (2024)

Table 3
Frequency distribution of adequate breast milk for babies after being given oxytocin massage in the Kedurang Community Health Center Work Area in 2023

Adequate Breast Milk For Abies	Ammount	Persentase (%)
Enough	23	76,7
Not enough	7	23,3

Source: Community Health Center Research Data (2024)

The results of table 3 show that after being given oxytocin massage, the majority of 23 (76.7%) babies had enough breast milk.

Analisis Bivariat
this analysis was carried out to determine the effect of oxytocin massage on postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center Work Area in 2023. The analysis was carried out by carrying out a normality test on both groups with the following results.

Tabel 4
Uji Normality

Sufficiency of breast milk	P	information
before	0,000	Not normal distributed
after	0,000	Not normal distributed

Based on table 4, the results showed that data on breast milk adequacy before and after the intervention were not normally distributed because the p-value was <0.05, so the statistical test used was Wilcoxon non-parametric statistics

Table 5
The effect of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies in the Kedurang Health Center Working Area in 2023

Oxytocin massage	Mean± SD	Mean Rank	Z	p
Before	2,87±0,730	0-15,5	4,838	0,000
After	7,20±1,472			

Based on table 5, it is found that the positive rank value shows that of the 30 postpartum mothers who were given oxytocin massage, it shows that the average value of breast milk adequacy for babies has increased from 2.87 to 7.29. Based on the results of the Wilcoxon test, it was found that before and after being given oxytocin massage The p-value obtained = 0.000 <0.05, meaning it is significant, then Ho is rejected and Ha is accepted, meaning there is an influence of oxytocin massage on postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center Working Area in 2023.

DISCUSSION
Characteristics of Postpartum Mothers in the Kedurang Community Health Center Work Area in 2023

Age
The research results obtained were mostly postpartum mothers (36.7%) aged 20-35 years. Women of reproductive age are included in the young adult category, where women are able to make independent decisions and give the best to their babies. Mothers who are at reproductive age are able to produce more breast milk than mothers who are at reproductive risk age, namely less than 20 years and more than 35 years. This is because the body's physiology is still good and optimal. Age is one of the factors that influences breast milk production. Mothers who are of mature age will give the best for their babies so that the babies can grow and develop optimally.

Work

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The research results were obtained by mostly 18 (60%) housewives. The employment status of respondents shows that the majority of respondents are not working. The mother's job is closely related to the mother's availability of time to be with her baby. Mothers who do not work have more free time to spend with their babies. Housewives have enough time to rest, so that mothers are not too tired and this will influence the release of the hormones oxytocin and prolactin which facilitate the production and release of breast milk. But on the other hand, even though my mother doesn't work, every day she carries out daily activities as a multi-tasking housewife. A housewife has many duties, including cooking, washing, taking care of her children and husband. This is related to excessive workload. If there is no support from the husband and family, the piling up of work can cause fatigue or tiredness and stress in the mother which triggers a decrease in breast milk production.

Education

The research results showed that almost half 14 (46.7%) had completed secondary education. Education is one of the factors that influences the smooth production of breast milk. Education influences the knowledge a person has, where someone who has higher education is expected to have good discourse and knowledge so that positive attitudes and behavior are formed. According to Notoatmodjo (2018), the higher a person's education, the easier it is for that person to receive information so that their knowledge increases. Mothers with medium to high educational status are able to receive new information and can accept changes to improve health, in this case regarding breastfeeding or lactation.

Number of children

The research results obtained that half 15 (50%) of the number of children were 2. The parity status of most of the respondents was multiparous. Parity describes the number of births a woman has. Parity is a factor that does not directly influence the smooth production of breast milk. This is due to other factors, especially external factors, which also influence, including knowledge, culture and beliefs, as well as previous experiences that the mother has previously had.

Frequency distribution of adequate breast milk for babies before being given oxytocin massage in the Kedurang Community Health Center Work Area in 2023

The research results were obtained before giving oxytocin massage, almost all 28 (93.3%) of them did not produce enough breast milk. These results indicate that there were 2 respondents who had sufficient breast milk for their babies, this was influenced by the mother's diet during pregnancy.

Frequency distribution of adequate breast milk for babies after being given oxytocin massage in the Kedurang Community Health Center Work Area in 2023

The research results showed that after being given oxytocin massage, the majority of 23 (76.7%) babies had enough breast milk. After being given an oxytocin massage, the 8 indicators with the lowest percentage not yet reached were the mother not touching the breast area which was full of breast milk. Many people don't do this because mothers want to breastfeed their babies immediately.

The effect of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center Work Area in 2023

The results of the positive rank value research showed that of the 30 postpartum mothers who were given oxytocin massage, it showed that the average value of breast milk adequacy for babies had increased from 2.87 to 7.29. The results of the Wilcoxon test showed that before and after being given oxytocin massage, the p-value = 0.000 <0.05, meaning it was significant, then Ho was rejected and Ha was accepted, meaning that there was an effect of oxytocin massage on postpartum mothers on the adequacy of breast milk for babies in the Kedurang Tahun Health Center Working Area. 2023.

CONCLUSION

Based on the results of research on the effect of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies at the Kedurang Community Health Center, the conclusion was that before being given an oxytocin massage, almost all 28 (93.3%) had insufficient breast milk, after being given an oxytocin massage, the majority were 23 (76.7%)) the adequacy of breast milk for babies is sufficient, there is an influence of oxytocin massage for postpartum mothers on the adequacy of breast milk for babies in the Kedurang Community Health Center Working Area in 2023

SUGGESTIONS

For Community Health Centers, the program that already exists at the Community Health Center

should be optimized to improve health education regarding exclusive breastfeeding and ways to increase breast milk apart from food can be done with oxytocin massage so that babies get enough breast milk and the need for baby massage training for health workers there so that oxytocin massage can be spread to all mothers. Postpartum.

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THE EFFECTIVENESS OF IMPLEMENTING INTERPROFESSIONAL COLLABORATION (IPC) IN COMMUNITY HEALTH CENTERS REGARDING EXCLUSIVE BREASTFEEDING ON KNOWLEDGE, ATTITUDES OF MOTHERS AND ACHIEVEMENTS OF EXCLUSIVE BREASTFEEDING

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ABSTRAK : EFEKTIVITAS PELAKSANAAN KOLABORASI INTERPROFESIONAL (IPC) DI PUSKESMAS TENTANG ASI EKSKLUSIF TERHADAP PENGETAHUAN, SIKAP IBU DAN CAPAIAN ASI EKSKLUSIF

Permasalahan kesehatan ibu dan anak saat ini yang menjadi fokus program pemerintah adalah masalah stunting. Stunting adalah suatu kondisi gagal tumbuh pada anak balita . Angka kejadian stunting di Indonesia pada tahun 2021 masih berada di 24,4 % (Pusdatin, 2021). Banyak faktor yang berhubungan dengan kejadian stunting. Salah satunya adalah pemberian asi eklusif pada bayi 0-6 bulan. Asi ekslusif adalah dibutuhkan oleh bayi karena sangat penting untuk pertumbuhan dan perkembangan bayi (S Novianita, 2022). Bayi yang mendapatkan asi eklusif mempunyai risiko lebih rendah terjadinya stunting (Sumiyati 2022)

Pemberian ASI ekslusif telah diprogram oleh pemerintah sejak tahun 2012 namun keberhasilan untuk pencapaian asi ekslusif berjalan lambat. Pada tahun 2021 pencapaian asi eklusif baru mencapai 71,58% untuk negara Indonesia, dan khusus untuk propinsi Lampung asi eklusif mencapai 74,93% pada tahun 2021 (Badan Pusat Statistik, 2022) . Usaha untuk mencapai target pencapaian asi eklsusif banyak program pemerintah yang dilaksanakan di Puskesmas salah satunya dengan memberikan penyuluhan-penyuluhan kepada ibu hamil di kelas ibu hamil . Akan tetapi penyuluhan penyuluhan tersebut hanya terbatas pada bagian KIA . Setelah bayi lahir dan seterusnya ibu jarang berkontak dengan KIA untuk konsultasi permasalahan seputar asi setelah bayi lahir. Ibu dan bayi banyak berkontak dengan petugas kesehatan di puskesmas hanya untuk mendapatkan suntikan imunisasi dasar. Akibatnya terjadi kegagalan pemberian asi ekslusif pada bayi karena adanya permasalahan-permasalahan yang tidak teratasi dalam masa menyusui. Idealnya adanya kerjasama antara bagian profesional dari bagian imunisasi ke bagian KIA agar dapat merujuk ibu dan bayi yang mengalami permasalahan seputar asi (asi sedikit, putting susu lecet dan sebagainya)

Tujuan penelitian ini adalah untuk mengetahui pengaruh penerapan interprofesional colaboration practice terhadap capaian asi ekslusif.

Metode Desain penelitian ini adalah kuasi eksperimen dengan rancangan one group pretest dan posttest. Populasi penelitian adalah ibu menyusui dengan usia bayi 1 bulan. Besar sample ditentukan dengan purposive random sampling. Intervensi berupa edukasi dan pendampingan tentang asi eklusif. Data dianalisis menggunakan univarat dan bivariat chi quadrat

Hasil : terdapat peningkatan pengetahuan dan sikap ibu sebelum dan setelah mengikuti IPC dan terdapat hubungan antara pengetahuan dan sikap terhadap capaian asi eklusiv

Kesimpulan : IPC bagian KIA dan Imunisasi dapat meningkatkan pengetahuan, sikap dan capain asi eklusiv

Saran : puskesmas dapat menerapkan IPC antara bagian KIA dan Imunisasi untuk meningkatkan capaian asi eklusisiv

Kata Kunci : PC, Kesehatan Ibu dan Anak, Imunisasi, ASI Eksklusif

ABSTRACT

Background: The current maternal and child health problem that is the focus of government programs is stunting. Stunting is a condition of failure to thrive in children under five. The incidence of stunting in Indonesia in 2021 will still be at 24.4% (RI, 2020). Many factors are related to the incidence of stunting. One of them is exclusive breastfeedingg for babies 0-6 months. Exclusive breast milk is needed by babies because it is very important for the baby's growth and development (Novianita et al., 2022). Baby who receive exclusive breast milk have a lower risk of stunting (Arsin & Syafar, 2020).

Exclusive breastfeeding has been programmed by the government since 2012, but success in achieving exclusive breastfeeding has been slow. In 2021, the achievement of exclusive breast milk will only reach 71.58%

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for Indonesia, and specifically for Lampung province, exclusive breast milk will reach 74.93% in 2021 (Statistik, 2023) one way is by providing counseling to pregnant women in pregnancy classes. However, this outreach is only limited to the KIA section. After the baby is born and so on, mothers rarely contact MCH to consult on issues regarding breast milk after the baby is born. Mothers and babies have a lot of contact with health workers at community health centers just to get basic immunization injections. As a result, there is failure to provide exclusive breastfeeding to babies due to problems that are not resolved during breastfeeding. Ideally, there should be collaboration between professional sections from the immunization section and the MCH section so that they can refer mothers and babies who experience problems related to breast milk (little breast milk, sore nipples and so on).

Purpose : of this research is to determine the effect of implementing interprofessional collaboration practice on the achievement of exclusive breastfeeding.

Methods: The design of this research is a quasi-experiment with a one group pretest and posttest design. The research population was breastfeeding mothers with babies aged 1 month. The sample size was determined by purposive random sampling. Intervention in the form of education and assistance regarding exclusive breastfeeding. Data were analyzed using univariate and bivariate chi quadrat

Results: there is an increase in knowledge and attitude of mothers before and after following IPC and there is a relationship between knowledge and attitude towards access to exclusive breastfeeding

Conclusion : Kia section IPC and immunization at community health centers influence the achievement of exclusive breastfeeding

Suggestion : Community health centers can implement IPC between the MCH and Immunization departments to increase the achievement of exclusive breastfeeding.

Key word : IPC, Maternal and Child Health, Immunization, exclusive breastfeeding

INTRODUCTION

The current maternal and child health problem that is the focus of government programs is stunting. Stunting is a condition of failure to thrive in children under five (Riyadi et al., 2023). The incidence of stunting in Indonesia in 2021 will still be at 24.4%. Many factors are related to the incidence of stunting (Hafid et al., n.d.). One of them is exclusive breastfeeding for babies 0-6 months. Exclusive breast milk is needed by babies because it is very important for the baby's growth and development. Babies who receive exclusive breast milk have a lower risk of stunting (Riyadi et al., 2023).

Exclusive breastfeeding has been programmed by the government since 2012, but success in achieving exclusive breastfeeding has been slow. In 2023, the achievement of exclusive breast milk will only reach 67.96% for Indonesia, down from 69.7% in 2021, and specifically for Lampung province, exclusive breast milk will reach 74.93% in 2021 (WHO, 2023). Efforts to achieve the target In achieving exclusive breast milk, there are many government programs implemented at Community Health Centers, one of which is by providing counseling to pregnant women in prenatal classes. However, this outreach is only limited to the KIA section. After the baby is born and so on, mothers rarely contact MCH to consult on issues regarding breast milk after the baby is born.

Mothers and babies have a lot of contact with health workers at community health centers just to get basic immunization injections. As a result, there is a high risk of failure to provide exclusive breastfeeding to babies due to problems that are not resolved during breastfeeding. Ideally, there should be collaboration between professional sections from the immunization section and the MCH section so that they can refer mothers and babies who experience problems related to breast milk (little breast milk, sore nipples, swollen breasts and so on). Mothers who have problems related to breastfeeding need to consult with a breastfeeding counselor at the Community Health Center. Nursing mothers need additional special knowledge about lactation so that the breastfeeding process runs smoothly.

Increasing mothers' knowledge about exclusive breastfeeding can be achieved through providing health education. Health education is an educational activity carried out by spreading messages, instilling confidence so that people are not only aware, know and understand, but are also willing and able to carry out recommendations related to health. Strategies for optimizing education by implementing interprofessional health education can improve communication skills and working together in teams which are the main competencies in collaborative practice between health professions (Prasetyo, 2023) (Maharani et al., 2022).

These inter-professional collaboration skills really support improving services for mothers and baby (Munawaroh et al., 2024). The aim of IPC is the practice of inter-professional collaboration, which involves various professions in learning how to work together by providing the knowledge, skills and attitudes needed to collaborate effectively (Askar, M., & Hasfat, 2024). The benefits of implementing IPC in health services come from achieving better collaboration between health practitioners (Manurung et al., 2023). Therefore, the author is interested in researching the effectiveness of IPC in increasing the achievement of exclusive breastfeeding through increasing the knowledge and attitudes of breastfeeding mothers.

RESEARCH METODS

The design of this research is a quasi-experiment with a one group pretest and posttest design. The research population was breastfeeding mothers with babies aged 1 month. The sample size was determined by purposive random sampling. Respondents were given education from the KIA and immunization department about exclusive breastfeeding. by using media in the form of booklets and KIA books. Intervention in the form of education and assistance regarding exclusive breastfeeding. Data used analyzed using univariate and bivariate chi quadrat.

RESEARCH RESULTS
Respondent Characteristics

Based on table 1, the characteristics of most respondents were in reproductive age (20 -35 years) as much as 83.3%. This age is the best age for pregnancy and childbirth. Because at this age the mother's body is in optimal condition for reproduction. According to age, it influences a person's grasping power and thinking patterns, the older one gets, the more one's grasping power and thinking patterns increase, so that the knowledge gained will be better.

Table 1
Respondent characteristics

Kategori	Frekuensi	%
Umur		
< 20 tahun	1	3,3
Tahun	25	83,3
>35 tahun	4	13,3
Pendidikan		
SMP	7	23,3
SMA	15	50
PT	8	26,6
Pekerjaan		
IRT	16	53,3
Swasta	3	10
Honor	1	3,3
PNS	2	6,7
Paritas		
Primi	6	20
Multigravida	20	66,7
Grande multi	4	13,3

For the characteristics of respondents based on education, most respondents had a high school education (50%). Education is one of the external individual factors that supports healthy living behavior. This is due to the ease in receiving information.

For job characteristics, the majority of respondents' jobs were as housewives, 16 people (53.3%). Mothers who take care of the household have a greater opportunity to provide breast milk, especially when breastfeeding exclusively. Working mothers can still provide breast milk by expressing breast milk.

For parity, most of the respondents, 66.7% (22 people) were multigravida. Respondents who had good experiences during breastfeeding in previous pregnancies had a greater chance of successfully providing breast milk.

Table 2
Mother's knowledge before and after IPC

Variable	Pengetahuan sebelum IPC		Pengetahuan setelah IPC	
	f	%	F	%
Baik	17	57	27	90
Kurang	13	43	3	10%

Based on table 2, there is an increase in respondents' knowledge from 17 people (57%) who have good knowledge to 27 (90%) who have good knowledge. This shows the need for education from midwives about exclusive breastfeeding to respondents. Both before pregnancy and after giving birth (Wijayanti et al., 2023).

Table 3
Mother's attitude before and after IPC

Variabel	Sikap sebelum		Sikap sesudah	
	f	%	f	%
Mendukung	19	63	24	80
Kurang mendukung	11	37	6	20

Based on table 3, it was found that there was an increase in supportive attitudes towards breast milk from 19 respondents (63%) to 24 respondents (80%). The research results are in accordance with research (Safitri et al., 2021). Having media that is easy for respondents to understand will create a supportive attitude because it is based on increasing knowledge through consistent educational efforts (Aritonang et al., 2023).

Based on table 4, the achievement of exclusive breastfeeding was achieved by 27 people (93%). This non-exclusive baby is caused by the baby being sick and the baby not gaining weight for one month. At certain times that can threaten the baby's health, it can happen that the baby is not given exclusive breast milk (Haurissa et al., 2019). Therefore, mothers need to closely monitor the baby's weight so that it always increases according to the weight gain curve outlined in the MCH book. To prevent delays in weight gain (Assriyah et al., 2020).

Table 4
Achievement of exclusive breast milk

Variabel	Frekuensi	%
Asi ekslusif	28	93
Tidak ekslusif	2	7

Table 5
Respondents' evaluation of the IPC for immunization and KIA

Item	Kategori	%
Kualitas Pelaksanaan penyuluhan	Sangat puas	80
Materi penyuluhan sesuai kebutuhan	Sangat sesuai	78
Manfaat penyuluhan	Sangat sesuai	85
Sarana penyuluhan (booklet)	Baik	80

Based on table 5, it is found that the implementation of IPC received a score above 80% regarding quality, materials, benefits and counseling facilities (booklets). IPC for KIA and immunization is a new thing being implemented at the Community Health Center so continuous efforts are needed so that the achievement of exclusive breastfeeding continues to increase (Munawaroh et al., 2024).

Bivariate
Based on table 6, it is known that the statistical test results obtained p value = 0.001, which means less than α 0.05. This shows that there is a relationship between knowledge and the achievement of exclusive breastfeeding.

Table 6
The relationship between knowledge (after IPC) and exclusive breast milk

Pengetahuan	Asi eklusif				Jumlah		P Value
	Ya		Tidak				
	n	%	n	%	n	%	
Baik	27	90	1	10	28	93,3	0,001
Kurang	1	10	1	10	2	6,67	

Table 7
Relationship between attitude (after IPC) and exclusive breastfeeding

Sikap	Asi ekslusif				Jumlah		P value
	Ya		Tidak				
	N	%	n	%	f	%	
Mendukung	24	80	1	3,33	25	83	0,002
Tidak mendukung	4	13	1	3,33	5	7	

Based on table 7, based on statistical tests, it is found that vpalue is 0.002, smaller than α 0.05. This shows that there is a relationship between a supportive attitude and the achievement of exclusive breastfeeding.

DISCUSSION

The relationship between knowledge (after IPC) and exclusive breast milk Based on table 6, it is known that the statistical test results obtained p value = 0.001, which means less than α 0.05. This shows that there is a relationship between knowledge and the achievement of exclusive breastfeeding. The research results are in accordance with research (Angkut, 2020). The existence of IPC activities at the Community Health Center provides an opportunity for respondents to obtain information related to exclusive breastfeeding. And respondents received information support from health workers, in this case midwives and immunization officers regarding the breastfeeding process (Riyadi et al., 2023).

Relationship between attitude (after IPC) and exclusive breastfeeding Based on table 7, based on statistical tests, it is found that vpalue is 0.002, smaller than α 0.05. This shows that there is a relationship between a supportive attitude and the achievement of exclusive breastfeeding. The results of this research are in line with research (Kusumawati, 2021), (Hafid et al., n.d.). The mother's attitude towards exclusive breastfeeding is one of the bases for the formation of exclusive breastfeeding behavior, with an attitude that supports breast milk increasing the success rate of breastfeeding exclusively and after 6 months (Sabriana et al., 2022), (Herman et al., 2021). The existence of IPC provides respondents with the opportunity to get support from KIA and Immunization officers in the form of appropriate information (Muchtar, et all, 2023) . Mothers who come to the community health center to receive immunization services also receive education about exclusive breastfeeding (Hafid et al., n.d.). A supportive attitude will arise if there is continued support from family and health workers (Rahayu et al., 2019).

IPC carried out at community health centers provides an opportunity for breastfeeding mothers to get information about breast milk. This opportunity could be a rare opportunity due to respondents' ignorance of seeking information about breast milk problems. IPC is also an innovation in community health center management that needs to be implemented by community health centers not only in the field of maternal and child health. IPC opens up opportunities for communication between community health center officers to avoid misinformation and also increase good cooperation.

CONCLUSION

Kia section IPC and immunization at community health centers influence the achievement of exclusive breastfeeding.

SUGGESTION

Kia and immunization departments at community health centers can implement IPC on an ongoing basis to increase the achievement of exclusive breastfeeding

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THE RELATIONSHIP BETWEEN HUSBAND'S PERCEPTION AND INTEREST IN USING CONDOMS AS CONTRACEPTION

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ABSTRAK : HUBUNGAN PERSEPSI SUAMI TERHADAP MINAT MENGGUNAKAN ALAT KB KONDOM

Latar Belakang : Penggunaan kondom sebagai metode kontrasepsi memiliki peran penting dalam perencanaan keluarga dan kesehatan reproduksi. Memahami persepsi suami tentang penggunaan kondom dan minat mereka dalam menggunakan kondom sangat penting dalam mempromosikan praktik perencanaan keluarga yang efektif.

Tujuan : Mengeksplorasi hubungan antara persepsi suami dan minat mereka dalam menggunakan kondom sebagai kontrasepsi di Puskesmas Pembantu Kaliharapan, Kabupaten Nabire, Papua Tengah.

Metode : Penelitian analitik observasional dengan pendekatan penelitian *cross-sectional*. Populasi pada penelitian ini yaitu seluruh suami yang menggunakan alat kontrasepsi kondom di Puskesmas Pembantu Kaliharapan Kabupaten Nabire Papua Tengah. Sampel pada penelitian ini yaitu 30 responden yang telah memenuhi kriteria secara *purposive sampling*. Analisis data pada penelitian ini yaitu uji statistik *Chi-Square* menggunakan *software* SPSS.

Hasil : Penelitian ini menunjukkan bahwa mayoritas responden berusia antara 20 hingga 35 tahun dengan pendidikan menengah, dan cenderung menggunakan kondom secara teratur. Persepsi terhadap kondom terbagi merata antara positif dan negatif, namun mayoritas suami menunjukkan minat yang positif terhadap penggunaan kondom. Hasil analisis bivariat didapatkan nilai p-value sebesar 0,003, yang lebih kecil dari tingkat signifikansi yang umumnya digunakan (0,05).

Kesimpulan : Adanya hubungan yang signifikan antara persepsi suami terhadap minat menggunakan kondom di Puskesmas Pembantu Kaliharapan Nabire.

Saran : Temuan dari penelitian ini diharapkan dapat memberikan wawasan tentang faktor-faktor yang memengaruhi minat suami dalam menggunakan kondom sebagai kontrasepsi. Dan dapat digunakan untuk meningkatkan kesadaran dan mempromosikan penggunaan kondom untuk praktik perencanaan keluarga yang efektif dan kesehatan reproduksi di masyarakat.

Kata Kunci : Minat, Penggunaan Kondom, Persepsi Suami

ABSTRACT

Background: The use of condoms as a contraceptive method plays a crucial role in family planning and reproductive health. Understanding husbands' perceptions of condom use and their interest in using condoms is vital in promoting effective family planning practices.

Purpose: To explore the relationship between husbands' perceptions and their interest in using condoms as contraception at the Kaliharapan Sub-District Health Center, Nabire District, Central Papua.

Methods: An observational analytical study with a cross-sectional research approach was conducted. The population consisted of all husbands using condoms as a contraceptive method at the Kaliharapan Sub-District Health Center, Nabire District, Central Papua. The sample comprised 30 respondents who met the criteria through purposive sampling. Data analysis employed Chi-Square statistical tests using SPSS software.

Results: The research findings indicate that the majority of respondents were aged between 20 and 35 years old, with a secondary education level, and tended to use condoms regularly. Perceptions of condoms were evenly divided between positive and negative, but most husbands showed a positive interest in condom use. Bivariate analysis revealed a p-value of 0.003, which is smaller than the commonly used significance level (0.05).

Conclusion: There is a significant relationship between husbands' perceptions and their interest in using condoms at the Kaliharapan Sub-District Health Center, Nabire.

Suggestions: The findings of this study are expected to provide insights into the factors influencing husbands' interest in using condoms as contraception. It can be utilized to enhance awareness and promote condom use for effective family planning practices and reproductive health in the community.

Keywords: Condom Use, Husbands' Perceptions, Interest

INTRODUCTION

Rosina Pigome, Candra Wahyuni

The Family Planning Program is a government program that aims to realize community welfare and contribute to society in realizing the norms of small, happy and prosperous families (Segoro et al, 2013). According to data from the Central Statistics Agency, Indonesia's population growth rate in 2023 will be 1.13% and the Ministry of National Development Planning projects that Indonesia's population in 2045 is estimated to have reached 324 million people or an increase of 54.42 million people compared to 2020 (BPS, 2023). Distrust of condoms is more a lack of knowledge about condoms, the possibility of condoms being damaged when they are cut, lack of sexual sensation, feeling uncomfortable buying condoms, feeling uncomfortable using condoms.

The perception of the importance of a condom product, starting from the taste, quality and type, greatly influences consumers' thinking in choosing and buying a condom. The perception held by consumers is not only based on health, but also based on a sense of formality/requirements in sexual relations. The lack of culture in using condoms for health can be seen from the large number of individuals who do not use condoms during sexual relations, resulting in unwanted pregnancies and they choose abortion, while the risk of abortion is infertility and leading to death. Then, the culture that exists in Indonesia regarding sexual behavior both in husband and wife relationships or unmarried people influences many people's purchasing decisions for condom products, efforts to prevent unwanted pregnancies by married couples or pre-marital pregnancies raise awareness of the need for condoms. men who are a tool to suppress unwanted pregnancies or prevent sexually transmitted diseases for individuals who are sexually active.

According to the National Family Planning Coordinating Board, it is very important to increase the role of men in family planning because men's role in family planning is still low, below 5 percent. Furthermore, according to data from the 2017 Indonesian Demographic and Health Survey, male family planning participation is still very low with the percentage of condom contraception reaching 2.5% and vasectomies at 0.2%. Meanwhile, data from the 2019 Program Performance and Accountability Survey achieved 3% condom contraception and 0.2% vasectomies. This happens because there are still many families who think that family planning is a woman's business, men's knowledge about male family planning is still low.

In Papua, the lack of participation of men in family planning programs is due to a lack of knowledge and information, awareness and socialization of men's family planning services to the community. According to the Papua Central Statistics Agency, in 2019, 160 people used contraceptive condoms, in 2020 there were 174,

and in 2021 there were 189 people. This shows that there is an increase in interest in using contraceptive condoms in Nabire. The research entitled the ineffectiveness of condom use among couples of childbearing age stated that the reasons why participants used condoms were to avoid getting pregnant, to prevent disease, to try it out, and to be cheap. The reasons why participants stopped using condoms were because they were uncomfortable, they were a hassle to wear, they were embarrassed, they reduced sexual pleasure, they caused pain for the wife, there were obstacles and their effectiveness was not guaranteed (Parinussa, 2020). Apart from that, research entitled factors that cause husbands to choose condoms and not choose condoms in the Sentang sub-district, East Range sub-district, stated that age and knowledge factors influence the choice of condoms (Tampubolon, 2017).

Based on the description above, the author is interested in conducting research on the relationship between husbands' perceptions of interest in using condoms at the Kaliharapan Sub-Public Health Center, Nabire Regency, Central Papua, which aims to determine husbands' support for the use of condoms at the Kaliharapan Sub-Public Health Center, Nabire Regency, Central Papua in 2024.

RESEARCH METHODS

This research uses the observational analytical research method, namely a research design used to determine the cause and effect relationship between two variables observationally, where the form of the relationship can be: difference, relationship or influence only carried out once for each research variable where the researcher only makes observations, without provide intervention on the variables that have been studied. The research approach used in this research is a cross sectional approach, namely research in which the independent variable and dependent variable are measured simultaneously and carried out briefly or once. In this study, the population studied was husbands who used contraceptive condoms at the Kaliharapan Community Health Center, Nabire Regency, Central Papua. The sampling technique used was purposive sampling. In this research, the sample studied was 30 respondents.

RESEARCH RESULTS

In this study, research results were obtained in the form of respondents' characteristics based on age, education, and time of using condoms. Apart from that, the frequency distribution includes perceptions of condom use and interest in using condoms.

Table 1
Respondent Characteristics

Characteristics	n (%)	
	F	%
Age of Respondents (years old)		
< 20 years old	6	20
20 - 35 years old	20	60
> 35 years old	4	20
Education of Respondents		
Basic	10	33,3
Middle	18	60
High	2	6,7
Intensity of using Condoms		
Always	17	56,6
Sometimes	9	30
Seldom	4	13,4

Based on the table above, it was found that the age range of respondents, namely husbands who used condoms, was 60% aged 20-35 years, 20% aged < 20 years and 20% aged > 35 years. So it can be concluded that the majority of respondents in the study were aged between 20 and 35 years with a percentage of 60%. This shows that the age range of 20 - 35 years has the highest frequency among the age groups surveyed.

Based on the table of characteristics of respondents based on their education, the results showed that husband respondents who used condoms had a primary educational background of 33.3%, 60% secondary and 6.7% higher education. Thus, it can be concluded that the majority of respondents in the study had a secondary education background with the majority of respondents in the study having a secondary education background, with a percentage of 60%. This shows that the group of respondents with a secondary education level has the highest frequency among the education groups surveyed.

Based on the table of characteristics of respondents based on time or intensity of using condoms, it was found that most respondents used condoms, namely always 56.6%, sometimes 30% and rarely 13.4%. It can be concluded that the majority of respondents in the study tend to use condoms regularly or always, with a percentage of 56.6%. This shows that the majority of respondents have the habit of using condoms consistently.

Based on the frequency distribution table regarding perceptions of condom use, it was found that the husband's perception of using condoms at the health center was evenly divided between positive and negative, each with a percentage of 50%. This shows that the views or attitudes towards condom use among husbands at the health center are not predominantly positive or negative, but are evenly distributed between the two perceptions.

Table 2
Frequency Distribution of Respondents

Frequency Distribution	n (%)	
	F	%
Perception of Condom Use		
Positive	15	50
Negative	15	50
Interest using Condoms		
Interested	15	50
Not Interested	15	50

Based on the frequency distribution table regarding the level of interest in using condoms, the results showed that 50% of husbands were interested in using condoms, and the remaining 50% of husbands had no interest in using condoms. This shows that as many as 50% of husbands show interest in using condoms, while the remaining 50% have no interest in using condoms. This shows that the majority of husbands at the community health center showed interest in using condoms, but there were still some who were not interested.

Table 3
Relationship between Husband's Perception and Interest in using Condoms at Kaliharapan Nabire Sub-District Health Center

Variable		Interest		P-value
		Interested	Not Interested	
Husband's Perception	Positive	15	2	0,003
	Negative	15	10	

Based on the table on the relationship between husbands' perceptions and interest in using condoms, it was found that 15 of the husbands who had positive perceptions of condom use (50%) were interested in using condoms, while only 2 husbands (50%) were not interested. Meanwhile, 15 of the husbands who had a negative perception of using condoms (50%) were interested in using condoms, while the other 15 husbands (50%) were not interested.

Thus, the Asymp value is known. Sig. (2-sided) in the Pearson Chi-Square test of 0.003. Because the value of Asymp. Sig. (2-sided) 0.003 < 0.05, then based on the basis of decision making above, it can be concluded that H0 is rejected and Ha is accepted, which means there is a relationship between husbands' perceptions of condom use and their interest in using them, where husbands with positive perceptions tend to have higher interest in using condoms.

DISCUSSION
The results of this study provide a strong basis for developing more effective interventions in

increasing condom use, especially among young adults. The development of educational programs that consider the social, motivational, and cultural factors that influence condom use could be an effective step in increasing awareness and safe sexual health practices among this population. Research conducted by Halimah et al (2022) regarding the relationship between age, parity and employment on the risks of pregnant women in the first trimester at the Cilengkang Bandung Community Health Center stated that a significant impact of young marriage is that young mothers do not know or do not understand pregnancy issues. Research conducted by Qomarasary et al (2022) regarding the relationship between gestational age, parity, KEK status, and maternal education level with the incidence of anemia in pregnant women at the El'mozza Clinic, Depok City.

This research shows that the age of parity pregnant women less than two years has a significant relationship with awareness and understanding of pregnancy problems. The conclusion of this study is that the focus of research or intervention related to condom use can be focused on the 20-35 year age group, considering that the frequency of condom use is highest in this group. This could also lead to more intensive health education strategies or more targeted health promotion programs to increase awareness and understanding of the importance of condom use among this age group.

The majority of respondents (husbands who use condoms) in the study had a secondary education background. This shows that the group of respondents with a secondary education level has the highest frequency among the education groups surveyed. Individuals who have a higher level of education tend to have broader knowledge about reproductive health, including a better understanding of the importance of using condoms in preventing the transmission of sexual diseases and unplanned pregnancies. A person's decision to use a condom is influenced by various factors, including education, cultural values, personal experience, access to information and health services, and the influence of the social environment.

Based on the results of this research, it was found that the same or equivalent number of respondents and their husbands had positive or negative perceptions of condom use. A person's behavior is influenced by their intention to perform the behavior, which is determined by attitudes (including positive or negative perceptions of the behavior), subjective norms (perceptions about whether others support the behavior), and perceived behavioral control (beliefs about the ability to perform the behavior (Ramdhani, N., 2011). In the context of condom use, positive or negative perceptions of condoms can influence a person's intention to use condoms. If someone has a positive perception of condoms, such as considering them effective in preventing disease or unwanted pregnancy, then they are more likely to have a strong intention to use condoms. Conversely, if someone has a negative perception of condoms, such as finding them uncomfortable or interfering with sexual pleasure, then their intention to use condoms may decrease. A person's attitude towards something can change through the process of experience, learning, or interaction with new information. In this context, people who initially have a negative perception of condoms can change their attitudes to be more positive after receiving adequate information about the benefits of using condoms and their positive impact on reproductive health (Ramdhani, N., 2011).

Based on the husband's interest in using condoms, the results showed that the husband was interested in using condoms. A person's intention to carry out a behavior, such as using a condom, is influenced by three main factors, namely attitudes towards the behavior, subjective norms (perceptions of support or rejection from other people for the behavior), and perceived behavioral control (beliefs about the ability to carry out the behavior). such behavior) (Wikamorys, A., & Rochmach, T. N., 2017). In the context of interest in using condoms, a person's intention to use condoms is influenced by their attitudes towards condoms, perceptions about whether other people support condom use, and their beliefs about their ability to use condoms correctly.

Based on the table regarding the relationship between perception and interest in using condoms, it is known that there is a relationship between the husband's perception of condoms and the husband's interest in using condoms at the Kaliharapan sub-health center, Nabire. In research conducted at the health center, it was found that the majority of husbands who had a positive perception of condoms also showed a high interest in using condoms consistently. On the other hand, husbands who have negative perceptions of condoms tend to have a low interest in using condoms. A person's behavior is influenced by their intention to perform the behavior, which is determined by attitudes (including positive or negative perceptions of the behavior), subjective norms (perceptions about whether others support the behavior), and perceived behavioral control (beliefs about the ability to perform the behavior (Ramdhani, N., 2011). In addition, factors such as social norms that do not support condom use or the belief that condoms are not needed if a partner is a permanent partner can also influence a husband's intention to use condoms (Ramdhani, N., 2011).

CONCLUSION

In this study, conclusions were obtained regarding husbands' perceptions of using condoms: half of the husbands had positive perceptions of condom use, while the other half had negative perceptions; husband's interest in using condoms: the majority of husbands (50%) showed interest in using condoms, while the remaining 50% were not interested; and the relationship between the husband's perception and interest in using condoms: there is a significant relationship between the husband's perception of condoms and the husband's interest in using condoms at the Kaliharapan sub-health center, Nabire. The p-value of 0.003, which is smaller than the generally used significance level (0.05), indicates that this relationship is not due to chance.

SUGGESTION

It is hoped that further research will be developed regarding the relationship between social factors such as culture, religion and local social structures influencing husbands' perceptions of the use of condoms as a contraceptive. Thus, it is hoped that further research in this regard will provide valuable insight into the factors that influence husbands' perceptions of the use of condoms as a means of contraception, which in turn can help in efforts to increase access and use of condoms for better reproductive health.

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