Poltekita: Jurnal Ilmu Kesehatan
http://jurnal.poltekkespalu.ac.id/index.php/JIK

Vol.17 No.3 November 2023: Hal. 707-714
p-ISSN: 1907-459X e-ISSN: 2527-7170

Original Article

Increased Levels of The Hormone Prolactin Through Complementary Treatments (Breast Care) and Spiritual Approaches (Qur'anic Murottal)

Mardiana Ahmad[1*], Tressan Eka Putri S. Katili[1], Nur Aliya Arsyad[1], Rika Riyandani[2], Juwita[3], Asma Sukarta[4]

[1] Midwifery Study Program, Graduate School, Hasanuddin University, Makassar, South Sulawesi, Indonesia
[2] Sandi Karsa Health Polytechnic, Makassar, South Sulawesi, Indonesia
[3] Institut Teknologi Kesehatan dan Bisnis Graha Ananda, Palu, Central Sulawesi, Indonesia
[4] Institut Teknologi Kesehatan dan Sains Muhammadiyah Sidrap, Sidenreng Rappang, South Sulawesi, Indonesia

(Correspondence author email, mardianaahmad@pasca.unhas.ac.id)

ABSTRACT

Breast milk is the best natural nutrition for babies and is needed during the first six months of a baby's life. Breast care and Al-Quran Murottal are methods for increasing prolactin hormone levels, and can also reduce the release of stress hormones, which are very important when mothers are breastfeeding. Quasi-experimental (quasi-experiment) with the approach used is a pre-test post test control group design, namely, research that uses a control group to be used as a comparison between pretest and posttest. The sample was obtained using a purposive sampling technique with a total of 39 postpartum mothers divided into (13 postpartum mothers in the breast care group, 13 postpartum mothers in the Murottal Al-Quran group, and 13 postpartum mothers in the control group). Prolactin hormone levels were measured before and after treatment. Data were analyzed using paired t-test and linear regression. The results showed that the breast care group had a value of p= 0.007<0.05, the Al-Quran mental group had a value of p=0.011<0.05, and the control group had a value of p=0.154>0.05. showed that the breast care group and Al-Quran murotal had an influence on prolactin hormone levels, whereas the control group had no influence on prolactin hormone levels. In conclusion, Breast Care and Murottal Al-Quran can be used to increase prolactin hormone levels in postpartum mothers so that postpartum mothers do not need to be confused about how to increase breast milk production.

Keywords: *Prolactin Hormone Levels, Breast Care, Murottal Al-Quran, Complementary Treatments*

https://doi.org/10.33860/jik.v17i3.3126

INTRODUCTION

Mother's milk is a natural food that a mother can provide to her child immediately after birth at the beginning of life. Breast milk is an emulsion of fat and a solution of protein, lactose, and organic salts secreted by both the mother's breast glands as the main food for the baby. Breast milk is the most suitable milk available for human babies because it is uniquely adapted to its needs. To obtain maximum benefits, breast milk must be given as soon as possible after birth (within 30 min after birth because the baby's sucking power is strongest at that time to stimulate further milk production) [1,2,3].

The factor that influences breast milk is the hormone prolactin, which is a lactogenic

hormone that stimulates the mammary glands to produce breast milk [4]. A decrease in breast milk production during the postpartum period after giving birth can be caused by a lack of stimulation of prolactin and oxytocin, which play a very important role in the smooth production of breast milk[5,6]. The release of prolactin is stimulated by the sensory nerves, which are then sent via the anterior pituitary. The anterior pituitary then reacts to release the hormone prolactin to the breasts and stimulates the milk-making cells to function[7]. Prolactin levels in breastfeeding mothers will become normal three months after giving birth until the child is weaned, and there will be no increase in prolactin even though the baby sucks, but milk production continues[8,2,9].

Breast milk production can increase or decrease depending on the stimulation of the breast glands. Apart from that, other factors that can influence breast milk production are frequency of breastfeeding, breast care, maternal psychology, use of birth control and maternal health as well as support from family and health workers[10,11,12,13,9]. Due to the importance of breastfeeding for babies, various methods are used to increase breast milk production, both pharmacologically and non-pharmacologically. Pharmacology is the use of drugs and special formula milk for breastfeeding mothers[14,15,16]. The non-pharmacological ones can be done with a balanced nutritional diet for breastfeeding mothers, early mobilization, oxytocin massage, breast care, and listening to chanting of the holy verses of the Koran[17,18,19,20].

One effort to increase breast milk production is by providing special care, namely by stimulating the breast muscles. Breast care is an action to care for the breasts, especially during the postpartum period (breastfeeding period), to facilitate the release of breast milk [21]. Breast care is breast care after a mother gives birth and breastfeeding, which is a method used to care for the breasts so that milk comes out smoothly [22]. Breast care is useful in influencing the pituitary gland to release prolactin and oxytocin. The hormone prolactin influences the amount of breast milk produced and the hormone influences the release of breast milk (Hendriyani). One of the problems that occur due to a lack of breast care is a decrease in breast milk production (Piccolo). The production and release of breast milk is influenced by prolactin, oxytocin, and Pudjiastuti. Prolactin influences the amount of breast milk produced, whereas oxytocin influences the production of breast milk [23].

Murottal is a sound recording of the Koran sung by a Qori (reader of the Koran), which can also be interpreted as the chanting of the holy verses of the Koran sung by a Qori, recorded, and played at a slow and harmonious tempo. Murottal is a type of music that positively influences listeners. Listening to the verses of the Koran that are read tartly and correctly brings peace to the soul. With a slow and harmonious tempo, chanting the Qur'an can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and divert attention from fear, anxiety, and tension, thereby improving the body's chemical system and lowering blood pressure and slowing breathing. A deeper or slower breathing rate is very good for causing calm, emotional control, the resulting effect is a very good effect, especially for breastfeeding mothers [24].

Murottal Al-Quran can increase endorphin levels, endorphin hormones increase the production of the hormone oxytocin which plays a role in increasing breast milk volume (let down reflex). In addition, endorphins cause feelings of relaxation and comfort in postpartum mothers, reducing stress and anxiety. Stress and anxiety are factors that inhibit oxytocin secretion. Because endorphin hormones increase the response of the posterior pituitary to produce oxytocin, the release of breast milk from the ductus becomes smooth, increasing levels of the hormone oxytocin will also increase levels of the hormone prolactin. Because those who work are bound together [25,26].

This study aimed to examine the effect of breast care and Al-Quran murottal on prolactin hormone levels in postpartum mothers. To determine whether there is an increase in prolactin hormone levels before and after breast care and the Al-Quran murottal. It is hoped that the research results can contribute to the world of health, especially health workers, in this case midwives, postpartum mothers, and breastfeeding mothers. If breast care and Al-Quran murottal can increase prolactin hormone levels, these two treatments can be administered to postpartum mothers or breastfeeding mothers who experience problems expressing breast milk as a treatment in the non-pharmacological category.

METHOD

This study was conducted in the working area of the Tilango Health Center, Gorontalo Regency. The sample in this study comprised 39 postpartum mothers who were divided into 3 delivery groups. The first group was given breast care, totaling 13 respondents; the second group was given murottal Al-Quran, totaling 13 respondents; and the third group was not given treatment or was used as a control group, totaling 13 respondents. The criteria were as follows: first-day postpartum mother with normal delivery, no nipple abnormalities, good psychological condition of the mother, baby who received early initiation of breastfeeding, baby born at term (>37 weeks) and birth weight (>2500), and mother being willing to be a respondent. The following is a specific procedure for breast care. Clean the nipples gently without using soap or shampoo until clean. Do not apply alcohol, lotion, or perfume to your nipples. Use antibacterial ointment to treat cracked nipples. Let the nipples dry by themselves without needing to be wiped. Apply a moisturizing ointment containing lanolin to the nipples after each feeding. This will reduce pain or soreness and prevent the nipples from drying out and cracking. Change breast pads frequently. If your breasts hurt while breastfeeding, stop breastfeeding immediately and use a breast pump for a few days. If you feel your nipples are flat or inverted, consult a doctor immediately. After each feeding, apply a few drops of breast milk to your nipples and let it dry. Breast milk moisturizes and protects the nipples from infection. Always handle your breasts with clean hands.

This research received ethical recommendations from the Hasanuddin University RSPTN Health Research Ethics Committee (protocol number UH21050307). Data related to the sample in this study were collected using a questionnaire through a direct interview with the respondents. For the ELISA examination, 3 cc of blood was collected from the medina cubital vein and placed into a 3 ml EDTA tube. The researcher was assisted by laboratory health workers under the supervision of the midwives in charge of each village. The blood sample was centrifuged for 5 min at 3000 rpm, and the plasma was transferred into a special plasma tube and stored in a refrigerator at -20°C. After all the samples were collected, prolactin hormone levels were examined using the Hasanuddin University Medical Research ELISA Kit (HUM-RC Laboratory).

RESULTS AND DISCUSSIONS

Based on the analysis that has been carried out in Table 1, the characteristics of the respondents obtained from the education of respondents in the breast care group were that the majority had a high school education, numbering six people (46.2%), as well as in the Al-Quran murottal group; it was found that the majority of mothers had a high school education, numbering six (46, 2%), but for the control group, the majority of mothers had junior high school education, numbering six (46.2%). Furthermore, for work, it was found that in the breast care group, the majority of mothers had jobs, numbering seven (53.8%), and for the Murottal Al-Quran group, the majority of mothers did not have jobs, eight (61.5%), and in the control group, it was found that the majority of mothers did not have a job, nine (69.3%). For parity, it was found that in the breast care group the majority of mothers were primiparous, 7 people (53.8%) and for the Al-Quran murottal group, the majority were multiparous mothers, 9 people (69.3%) and in the control group, the majority were multiparous mothers, 7 people (53.8%)

Table 1. Characteristics of Breast Group Respondents.

Variable	Breast Care	Murottal Al-Quran	Control Group
	n (%)	n (%)	n (%)
Education			
Elementary Schools	3 (23,1%)	4 (30,7%)	2 (15,3)
Junior High Schools	1 (7,6%)	2 (15,3%)	6 (46,2%)
Senior High Schools	6 (46,2%)	6 (46,2%)	2 (15,3%)
University	3 (23,1%)	1 (7,6%)	3 (23,1%)
Working Status			
Working	7 (53,8%)	5 (38,5%)	4 (30,7%)
Not Working	6 (46,2%)	8 (61,5%)	9 (69,3%)
Parity			
Primipara	7 (53,8%)	4 (30,7%)	6 (46,2%)
Multipara	6 (46,2%)	9 (69,3%)	7 (53,8%)

Based on the analysis carried out in

Table 2 of the characteristics for the age of the respondents, it was found that the lowest mean value was in the control group 25.3 ± 4.5), and the highest mean value was in the Al-Quran murottal group 27.1 ± 6.1). Furthermore, for the postpartum period, it was found that the lowest mean value was in the breast care group (17 ± 11) and the highest mean value was in the Al-Quran murottal group (21 ± 9.8). For body weight, the lowest mean value was in the control group 63.7 ± 12.4) and the highest was in the Al-Quran murottal group (69 ± 11.1). Furthermore, for height, it was found that the lowest mean value was in the Al-Quran morottal group 155.2 ± 7.6 and the highest mean value was in the breast care group 157.8 ± 6.6

Table 2. Characteristics of Murottal Al-Quran Group Respondents

Variable	Breast Care	Murottal Al-Quran	Control Group
	Mean±SD	Mean±SD	Mean±SD
Age	27±7,4	27,1±6,1	25,3±4,5
Postpartum period	17±11	21±9,8	18,9±9,6
Weight	66,8±10,6	69±11,1	63,7±12,4
Height	157,8±6,6	155,2±7,6	156,5±7

In the previous breast care group, the data was tested for normality and it was found that the data was not normally distributed, so the Wilcoxon test was carried out, based on the results obtained the mean pre test value was 205.6ng/ml (SD ± 143.6) and the mean post test value was 233.2ng/ml (SD ± 162.0), with P value = 0.007 which means P < 0.05, it can be concluded that there is an influence of breast care on breast milk production (Prolactin Hormone Levels) in postpartum mothers.

In the Murottal Al-Quran group, the paired T test was carried out because the data was normally distributed, with the results obtained that the pre-test mean value was 141.9 ng/ml (SD ± 81.9) and the post-test value was 215. 6ng/ml (SD ± 85.1), there was an increase between the Pre test and Post test values. In addition, based on the P-value, it was found to be 0.011, which means P < 0.05, so it can be concluded that there is an influence of Murottal Al-Qur'an on breast milk production (Prolactin Hormone Levels) in postpartum mothers.

Control group Using the paired T test it was found that there was a decrease between the pre test mean value of 144.5 ng/ml (SD ± 96.7) and the post test value of 109.8 ng/ml (SD ± 52.5) besides the P value obtained 0.154 which means P > 0.05 or it can be concluded that there is no influence of the control group on breast milk production (prolactin hormone levels) in postpartum mothers.

Table 3. Effect of Breast Care and Murottal Al-Quran on Increasing Prolactin Hormone Levels.

Intervention	n	Mean±SD	p-value
Breast Care			
Pre-test	13	205,6±143,6	0,007
Post-test	13	233,2±162,0	
Murottal Al-Quran			
Pre-test	13	141,9±81,9	0,011
Post-test	13	215,6+85,1	
Control Group			
Pre test	13	144,5±96,7	0,154
Post test	13	109,8±52,5	

The results of the independent T test were obtained from comparing the post breast care scores and the Al-Qur'an murottal. The mean value of breast care was 233.2 ng/ml (SD ± 162.0), and the Al-Quran Murottal was 215.6 ng. /ml (SD ± 85.1). With a P value of 0.731 or P > 0.05, there was no significant difference between breast care and Al-Quran murottal in terms of increasing prolactin levels.

Table 4. Comparison of Prolactin Hormone Levels in the Breast Care and Murottal Al-Qur'an groups

Intervention	Mean±SD	Sig.
Breast Care	233,2±162,0	0.731
Murottal Al-Qur'an	215,6±85,1	

Based on the analysis, it was determined that the calculated t-value for breast care was -0.399, with a significant value of 0.697. The t value in this study was 2.228. Therefore, it can be concluded that a sig value > 0.05, 0.697 > 0.05, t count < t table, or -0.399 < -2.228 indicates that there is no effect of breast care on prolactin hormone levels. For the Al-Quran murottal group, it was found that the calculated t value was -3.025 with a significance value of 0.012; therefore, it can be concluded that the sig value was <0.05, or 0.012 <0.05. and calculated t-value > t-table or -3.025 > -2.228. This means that the Al-Quran murottal has an influence on prolactin hormone levels.

Based on the calculated f obtained, which is 9.517 and the f table is 3.98 with a significant value of 0.005, it can be concluded

that the sig value is. 0.005 < 0.05, and f count > f table or 9.517 > 3.98, which means that there is an influence of breast care and Al-Quran murottal simultaneously (together) on prolactin hormone levels. With an R square value for breast care of 0.014, this shows that the effect of breast care on prolactin hormone levels was only 1.4%, whereas for Al-Quran Murottal the R square value was found to be 0.454 or the effect of Al-Quran Murottal on prolactin hormone levels was 0.454. 45.4%. In addition, supported by the results of the correlation coefficient test, it was found that the Al-Quran murottal was 0.674, which means that the level of relationship between Al-Quran murottal and increasing prolactin hormone levels was stronger than breast care.

Table 5. The Relationship between Breast Care and Al-Quran Murottal on Increasing Prolactin Hormone Levels

Variable	T count	Sig.	R. square	F count	Sig.	Correlation coefficient (r)
Breast Care	-0,399	0.697	0,014	9,517	0.005	-0.119
Murottal Al-Quran	-3,025	0.012	0,454			-0.674

Based on the results of research on 39 respondents at the Tilango Community Health Center, Gorontalo Regency, breast care can be analyzed. The results of statistical tests showed that there was an effect of breast care on increasing breast milk production, as seen from the increase in prolactin levels before and after trea with (p = 0.007), which means p < 0.05. This research is in accordance with the research conducted by [27], which states that there is a difference in the flow of breast milk before and after breast care in postpartum mothers (p = 0.031).

Providing breast care during the postpartum period can improve blood flow to the breasts, which can then reduce intraductal pressure caused by breast milk collection in the lactiferous ducts [28,29]. Pulling on the nipple can flex and open the lactiferous ducts, making it easier for the baby to suckle breast milk[30]. Pulling the nipple can also stimulate sensory nerve endings around the nipple, so that this stimulation is transmitted to the hypothalamus via the spinal cord and mesencephalon[31]. The hypothalamus will suppress the release of factors that inhibit prolactin secretion and vice versa will stimulate the release of factors that stimulate prolactin secretion[32]. Factors that stimulate prolactin secretion stimulate the anterior pituitary gland to produce prolactin. This prolactin hormone will then stimulate alveoli cells to make milk [33].

Likewise, with the Murottal Al-Quran research results obtained by researchers there was an increase in prolactin hormone levels before and after treatment where the previous mean value was 141.9ng/ml (SD ± 81.9) increasing to 215.6ng/ml (SD ±85.1), and based on the p value = 0.011 (p<0.05), which means that there is an influence of Murottal Al-Quran on breast milk production in postpartum mothers. Therefore, it can be concluded that Al-Quran Murottal can affect breast milk production (prolactin hormone levels), and that mothers who undergo Al-Quran Murottal have absolutely no information or knowledge regarding breast care, so it is certain that they do not carry out breast care themselves during research.

In accordance with research conducted by [34] which states that there is a difference in breast milk production before being given Al-Qur'an murrotal therapy and after being given Al-Qur'an murrotal therapy, namely the result of p value = 0.000. The results of the analysis show that there is an effect of giving Al-Qur'an murrotal therapy on production Breast milk in breastfeeding mothers in the working area of Bandar Khalifah Community Health Center in 2019. This is because Murottal Al-Qur'an is a sound of a certain frequency and length. These waves produce a string of lilting melodies that influence brain cells and restore balance in the body, can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and divert attention from fear, anxiety, and tension; by activating endorphin hormones, it will cause a vasodilation response, which increases the smooth flow of the body's blood so that the body becomes relaxed and calm, thus triggering the release of oxytocin, which plays a role in the let-down reflex mechanism (breast milk release) and influences the release of prolactin (prolactin reflex) [35,36].

Breast care is very important, one of which is maintaining breast cleanliness, especially the cleanliness of the nipples to avoid infection, softening and improving the shape of the nipples so that the baby can breastfeed well, stimulating the glands and the hormones prolactin and oxytocin to increase smooth breast milk production and detect early nipple

abnormalities and making efforts to overcome them[37,38]. In addition to breast care, another effort that can increase prolactin hormone levels is Murottal Al-Quran Murottal, a voice recording of the Koran sung by a Qori (reader of the Koran), which can also be interpreted as the chanting of the holy verses of the Koran. A song sung by a Qori was recorded and played at a slow and harmonious tempo [39]. Murottal is a type of music that positively influences listeners. Listening to the verses of the Qur'an which are read tartly and correctly will bring peace to the soul.

CONCLUSION

Breast Care and Murottal Al-Quran can increase prolactin hormone levels in postpartum mothers. Therefore, it is hoped that these two methods can be used as alternatives for breastfeeding mothers with a history of insufficient breast milk.

REFERENCES

1. Suryani D, Simbolon D, Elly N, Pratiwi BA, Yandrizal. Determinants Failure Of Exclusive Breast Feeding On Health In The City Bengkulu. J Kesehat Masy. 2017;12(2):96–104.
2. Najmawati, Nurdin A, Asriany. Factors Affecting On Baby's Sucking For Secretion Of Breast Milk At The Health Center Batua Makassar. J Kesehat. 2014;7(1):204–53.
3. Ali SA, Adiaksa BW. Faktor Yang Berhubungan Dengan Pemberian Asi Eksklusif Pada Bayi. J Ilm Kesehat Sandi Husada. 2023;12(1):255–61.
4. Kim YJ. Pivotal Roles Of Prolactin And Other Hormones In Lactogenesis And The Nutritional Composition Of Human Milk. Clin Exp Pediatr. 2020;63(8):312–3.
5. Hayuningsih S, Kusmintarti A. The Effect Of Oxytocin Massage On Breast Milk Production Among Breastfeeding Women At Rb Citra Lestari Bojonggede Bogor In 2022. Proceeding Second Muhammadiyah Int Public Heal Med Conf. 2022;Ii(I):284–90.
6. Widiastuti NMR, Widiani NNA. Improved Breastfeeding With Back Massage Among Postnatal Mothers. Int J Res Med Sci. 2020;8(2):580.
7. Gregerson KA. Prolactin: Structure, Function, and Regulation Of Secretion. Knobil Neill's Physiol Reprod. 2005;80(4):1703–26.
8. Sofiyanti I, Astuti FP, Windayanti H. Penerapan Hypnobreastfeeding Pada Ibu Menyusui. Indones J Midwifery. 2019;2(2):84–9.
9. Wulandari C. Hubungan Perawatan Payudara Pada Ibu Postpartum Dengan Kelancaran Pengeluaran Asi Di Desa Galak Kecamatan Slahung Kabupaten Ponorogo. J Delima Harapan. 2018;5(1):48–54.
10. Awaliyah SN, Rachmawati IN, Rahmah H. Breastfeeding Self-Efficacy As A Dominant Factor Affecting Maternal Breastfeeding Satisfaction. Bmc Nurs. 2019;18(Suppl 1):1–7.
11. Lokossou GAG, Kouakanou L, Schumacher A, Zenclussen Ac. Human Breast Milk: From Food To Active Immune Response With Disease Protection In Infants And Mothers. Front Immunol. 2022;13(April):1–19.
12. Taqiyah Y, Sunarti S, Rais NF. Pengaruh Perawatan Payudara Terhadap Bendungan Asi Pada Ibu Post Partum Di Rsia Khadijah I Makassar. J Islam Nurs. 2019;4(1):12.
13. Nurakilah H, Garna H, Hartini SS, Wijayanegara H, Suardi A, Rasyad As. Perbandingan Pengaruh Penggunaan Warm Bra Care Dan Kompres Hangat Terhadap Kelancaran Pengeluaran Asi Pada Ibu 3 – 4 Hari Pospartum Di Puskesmas Tomo Kabupaten Sumedang. J Sisitem Kesehat. 2019;5(1):13–7.
14. Mangat A, Schmölzer G, Kraft W. Pharmacological and Non-Pharmacological Treatments For The Neonatal Abstinence Syndrome (Nas). Semin Fetal Neonatal Med. 2019;24(2):133–141.
15. Mcguire TM. Drugs Affecting Milk Supply During Lactation. Aust Prescr. 2018;41(1):7–9.
16. Spencer JP, Gonzalez Ls, Barnhart Dj. Medications In The Breast-Feeding Mother. Am Fam Physician. 2001;64(1):119–26.
17. Ramadhini M, Kurniati CH. The Effect of Breast Care And Oxytocin Massage

On Breast Milk Production In Postpartum Mothers In The Working Area of Pataruman Public Health Center III Banjar City. Proc Ser Heal Med Sci. 2022;2:82–90.
18. Handayani ET, Rustiana E. Perawatan Payudara Dan Pijat Oksitosin Meningkatkan Produksi Asi Pada Ibu Post Partum Primipara. J Kebidanan Malahayati. 2020;6(2):255–63.
19. Yulianti ND. Efektifitas Perawatan Payudara Dan Pijat Oksitosin Terhadap Kecukupan Pengeluaran Asi Pada Ibu Nifas Di PMB Tangerang Selatan Tahun 2022. J Midwifery Sci Women's Heal. 2022;2(2):74–9.
20. Maryatun M, Wardhani DK, Prajayanti ED. Peningkatan Produksi ASI Ibu Menyusui Pasca Melalui Pemberian Pijat Oksitosin Dan Terapi Musik Klasik (Mozart) Wilayah Kerja Puskesmas Kradenan 2. Gaster. 2019;17(2):188.
21. Widyastutik O, Chartasim Y, Trisnawati E, Selviana. Factors Related To Breastmilk Production On Postpartum Mothers In East Pontianak, West Kalimantan. Indones J Public Heal. 2021;16(2):297–314.
22. Triansyah A, Indarty A, Tahir M, Sabir M, Nur R, Basir-Cyio M, Anshary A, Rusydi M. The effect of oxytocin massage and breast care on the increased production of breast milk of breastfeeding mothers in the working area of the public health center of Lawanga of Poso District. Gaceta Sanitaria. 2021 Jan 1;35:S168-70. https://doi.org/10.1016/j.gaceta.2021.10.017
23. Darmasari S, Putri E, Rahmadaniah I. Effectiveness Of The Combination Of Marmet Technique And Oxytocin Massage Against The Breast Milk Production Of Mother Postpartum. J Kedokt Kesehat Publ Ilm Fak Kedokt Univ Sriwij. 2019;6(3):110–4.
24. Migliaccio GM, Russo L, Maric M, Padulo J. Sports Performance And Breathing Rate: What Is The Connection? A Narrative Review On Breathing Strategies. Sports. 2023;11(5):1–10.
25. Yusnaini Y, Kartinazahri K. Effectiveness Of Endorphin Massage and Breast Milk Supplements On Lactation Success In Aceh Besar. Midwifery Nurs Res. 2023;5(1):15–20.
26. Khalidatul, Khair Anwar; Veni, Hadju; Muh NM. Pemberian Murottal Al Qur'an Untuk Menghilangkan Nyeri Persalinan. J Kesehat [Internet]. 2019;10:58–62.
27. Juliandari KA, Sofiyanti I. Differences In Language Development Before And After The Provision Of The Storytelling Method In Paud Balqist Subi. In: The 1st International Conference On Health, Faculty Of Health. 2022. P. 32–9.
28. Stordal B. Breastfeeding Reduces The Risk Of Breast Cancer: A Call For Action In High-Income Countries With Low Rates Of Breastfeeding. Cancer Med. 2023;12(4):4616–25.
29. Alekseev NP, Vladimir II, Nadezhda TE. Pathological Postpartum Breast Engorgement: Prediction, Prevention, And Resolution. Breastfeed Med. 2015;10(4):203–8.
30. Elad D, Kozlovsky P, Blum O, Laine AF, Jack Po M, Botzer E, Et Al. Biomechanics Of Milk Extraction During Breast-Feeding. Proc Natl Acad Sci U S A. 2014;111(14):5230–5.
31. Gimpl G, Fahrenholz F. The Oxytocin Receptor System: Structure, Function, And Regulation. Physiol Rev. 2001;81(2):629–83.
32. Gupta S, Lakshmanan DAM, Khastgir U, Nair R. Management of Antipsychotic-Induced Hyperprolactinaemia. Bjpsych Adv. 2017;23(4):278–86.
33. Barata PC, Santos MJ, Melo JC, Maia T. Olanzapine-Induced Hyperprolactinemia: Two Case Reports. Front Pharmacol. 2019;10(July):1–4.
34. Silalahi YF, Fadillah F, Fithriani F, Aisyah A. Pengaruh Murrotal Al-Qur'an Terhadap Produksi Asi Pada Ibu Menyusui Di Wilayah Kerja Puskesmas Bandar Khalifah Tahun 2019. Pros Sintaks 2019. 2019;1(1):441–5.
35. Lusiani ND, Stasia IM. The Effect Of Combination Of Endorphin Massage And Murottal Therapy On Reduction Of Menstrual Pain In Adolescent Girls

At Al Azhaar Islamic High School Tulungagung. Open Access Heal Sci J. 2022;3(1):6–12.
36. Marlina L, Purba A, Pandia V, Adiwinata Mr, Harahap Ns, Womsiwor D. Differences Interval Training And Continuous Training On Endorphin Level and Anxiety Degrees In Secaba Rindam III Siliwangi Student Soldiers With Moderate Anxiety. Med Arch. 2023;77(2):127–31.
37. Indrayani T, Choirunnisa R, Lumprom O. Effectiveness Of Combining Oketani And Oxytocin Massage On The Breastmilk Production. Ijnp (Indonesian J Nurs Pract. 2023;6(2):91–9.
38. Wulan S, Gurusinga R. Pengaruh perawatan payudara (breast care) terhadap volume ASI pada ibu post partum (nifas) di RSUD Deli Serdang Sumut tahun 2012. Jurnal Kebidanan Harapan Ibu Pekalongan. 2017;1:21-4.
39. Harianto, YE. *Dinamika Konflik Pengelolaan Sampah (Studi Deskriptif Konflik Realistis Pengelolaan Sampah TPA Benowo Surabaya).* Skripsi thesis, Universitas Airlangga; 2015.