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Comparing Oxytocin Massage with Katuk Leaf Extract in Increased Breast Milk Production

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Abstract:

Background: *Breast milk plays an important role in the fulfillment of nutrition, immunity, and baby growth and development at the cognitive, behavioral and motor levels. The presentation of breastfeeding cakes in Indonesia amounted to 71.58% in 2021. Problems in breastfeeding are mostly caused by the condition of the mother's milk that does not come out or the lack of milk production. This is influenced by the hormone oxytocin which is difficult or lacking in work, because this is the occurrence of obstacles in the stimulation of the baby's suction which works for the activeness of the hormone oxytocin.*

Purpose of the Review: *Reviewing the comparison between giving oxytocin massage with the effectiveness of katuk leaves in increasing breast milk production.*

Method: *Scoping Review using PRISMA-ScR framework; scoping review questions with the PICO framework; search for articles through relevant databases, namely Pubmed, Science Direct and Wiley, ; Critical Appraisal uses the MMAT tool.*

Results: *Based on the results of search 340 there are 10 articles that match the inclusion criteria, in this review there are two main themes, namely oxytocin massage and extra katuk leaves.*

Conclusion: *The effect of giving oxytocin and katuk leaves massage in nursing mothers can increase the mother's milk production. The procedure of massaging oxytocin makes the mother feel more comfortable and relaxed so that the mother's body activates the stimulation to produce the hormone oxytocin. This hormone is useful as part of the process of smooth milk production. Extra katuk leaves have a role to stimulate the alveoli in the mother's body to produce breast milk more effectively.*

Keywords: *"Breastfeeding Mothers OR Puerperal Mothers, AND Oxytocin Massage, OR Oxytocin Massage, AND Katuk Leaves OR Sauropus Androgynous (L.) Merr AND Breast Milk OR Breast Milk"*

1. INTRODUCTION

Breast milk (breast milk) is the most perfect nutrient for babies, especially in the first month of life. The World Health Organization (WHO) has recommended the importance of exclusive breastfeeding in infants aged 0-6 months (Kurniati et al., 2019). The rate of breastfeeding in Indonesia in 2021 is 71.58%. This figure is an increase of 69.62% compared to the previous year. However, in most states, the rate of exclusive breastfeeding is still below the national average. Gorontalo is recorded as the state with the lowest percentage with only 52.75%. Central Kalimantan and North Sumatra followed by 55.98 ± 57.83%. The rate of exclusive breastfeeding in West Papua is reported to be 58.77%. while in Kepri it was 58.84%. DKI Jakarta is also a province whose proportion is lower than the national figure of 65.63% (Ministry of Health, 2021). Exclusively breastfed babies are babies aged 0-6 months who are exclusively breastfed and are not given any other food or liquids other than medicines, vitamins and minerals. The rate of exclusive breastfeeding in Yogyakarta City for babies aged 0-6 months in 2020 was 73.2%, down from 2019 which exceeded the national target of 0.5 million. (Dinkes Yogyakarta, 2021)

Physiologically, the role of breast milk is very influential in the nutritional adequacy and

immunity of the baby, the main pillar of the baby's growth and development at the cognitive, behavioral and motor levels. The benefits of breastfeeding for mothers can increase oxytocin levels which can help the process of uterine retraction during childbirth. (Krol et al., 2018). One of the problems of breastfeeding is the lack of breast milk, or at least the production of insufficient breast milk. This is due to the influence of the hormone oxytocin, that is, because the baby's suction stimulation is insufficient and ineffective, and the function of the hormone oxytocin is activated. (Fikawati et al, 2015). The main reason mothers stop breastfeeding is because they feel that their milk production is insufficient and not enough to meet the baby's needs and support the baby's weight gain. (Rahayu & Yunarsih, 2018).

Oxytocin massage is a therapy that slows down adrenocorticotropic hormone (ACTH), supports the secretion of hormones and prolactin, as well as increases the production of breast milk. (Winter & Jurek, 2019). The lack of stimulation of the hormones prolactin and oxytocin reduces milk production and consumption during the first days after birth, affecting the smoothness and yield of milk. One way to overcome the uneven milk supply is to massage the cervical spine, back, or spine (vertebrae) up to the 5th and 6th ribs. Previous studies have shown the influence of oxytocin and endorphin massage in influencing breast milk production in nursing mothers. (Hidayati & Hanifah, 2019).

One of the efforts that must be made to maximize the quality and quantity of breast milk is oxytocin massage. The oxytocin massage technique is the act of massaging the spine (vertebra) from the 7th cervical vertebrae to the 5th and 6th spine. The ribs accelerate the parasympathetic nervous system and send commands to the back of the brain to produce oxytocin (Morhenn et al., 2012). To maintain the quality of breast milk, mothers must follow a diet based on the principle of balanced nutrition and consume a varied diet, especially dark green vegetables that are suitable for breastfeeding (Manggabarani et al., 2018). One of the traditional plants used to increase and facilitate breast milk is katuk leaves (Sauropus androgynous (L.) Merr), the calorie, protein and carbohydrate content of katuk leaves is almost the same, even the iron content of katuk leaves is very good. . Papaya leaves and cassava leaves, besides that they are also rich in vitamins A, B1 and C. Besides being rich in proteins, fats, vitamins and minerals, katuk leaves also contain tannins, saponins and papaverine-alkaloids. (Suwanti, 2016). This study was conducted to compare the effectiveness of oxytocin and katuk leaf massage on the smoothness of breast milk. Researchers use the PICO framework (Population, Intervention, Comparason and Outcomes)

Table1.1. *scoping review questions*

Population	Intervention	Comparison	Outcome
Breastfeeding mothers	Oxytocin Massage	Katuk Leaves	Streamlining breast milk production

Based on the PICO framework used so the scoping review question is how to compare oxytocin massage with katuk leaves in increasing breast milk production?

2. METHOD

This study uses scoping review which is a systematic review used to review the scope of methodology, interpret the results with evidence-based, map the concepts underlying the research area, sources of evidence, and types of evidence available (Tricco et al. 2018). PRISMA-ScR was chosen by the researcher as a review of the preparation of the literature review study because it has a complete and detailed preparation checklist consisting of the following:

1.Protocol and Registration

Researchers use the PRISMA-ScR checklist protocol where this checklist has 22 assessment items and checklists used available at Annals.org (Tricco et al., 2018).

2.Eligibility Criteria

Based on the PICO framework that has been selected by the researcher, the criteria for inclusion and exclusion of articles are as follows:

Table2.2. *Inclusion and Exclusion criteria*

INCLUSION	EXCLUSION
Original research Articles	Paid Articles
Research studies using qualitative and qualitative approaches	Opinion article
Articles published in English or Indonesian	Report documents/guidelines
Articles published in the last 5 years in 2017-2021	Review/comment articles
Full text journal	Inaccessible files

3.Information Sources

Researchers used 3 databases namely Google Scholar, Pubmed and garuda portal, Onesearch for the reason that:

Google Scholar is a part of the search that focuses on determining the citations or citations raised by great and trusted people, and these quotes will be directly connected to the Google Docs facility[1], with the existence of Google Scholar + Citation making the work of prospective researchers easier, faster and more practical in compiling their research without having to do a Copy and Paste system. Citation has a function of helping in writing scientific papers that are being made and then will be directly quoted into the Footnote stage which is in the section of Google Docs.Google Scholar, where this section of the system also presents quotes of various kinds of sciences such as health, natural knowledge, general knowledge, economics, technology, and so on.

PubMed is part of a free database that is interconnected to several reference and abstract databases that will focus on the natural sciences and biomedical topics of MEDLINE. The United States National Library of Medicine (NLM) at the National Institutes of Health is also more focused on managing databases that are part of Entrez's information collection system.

The Garuda IPI (Indonesian Publication Index) portal is part of the place for tracing, indexation, abstraction, monitoring, and has other functions as an improvement in the quality standards of scientific publications in Indonesia. This portal was first proposed by a community of scientists called the Institute of Advanced Engineering and Science or IAES for short, especially the IAES Indonesian Section.

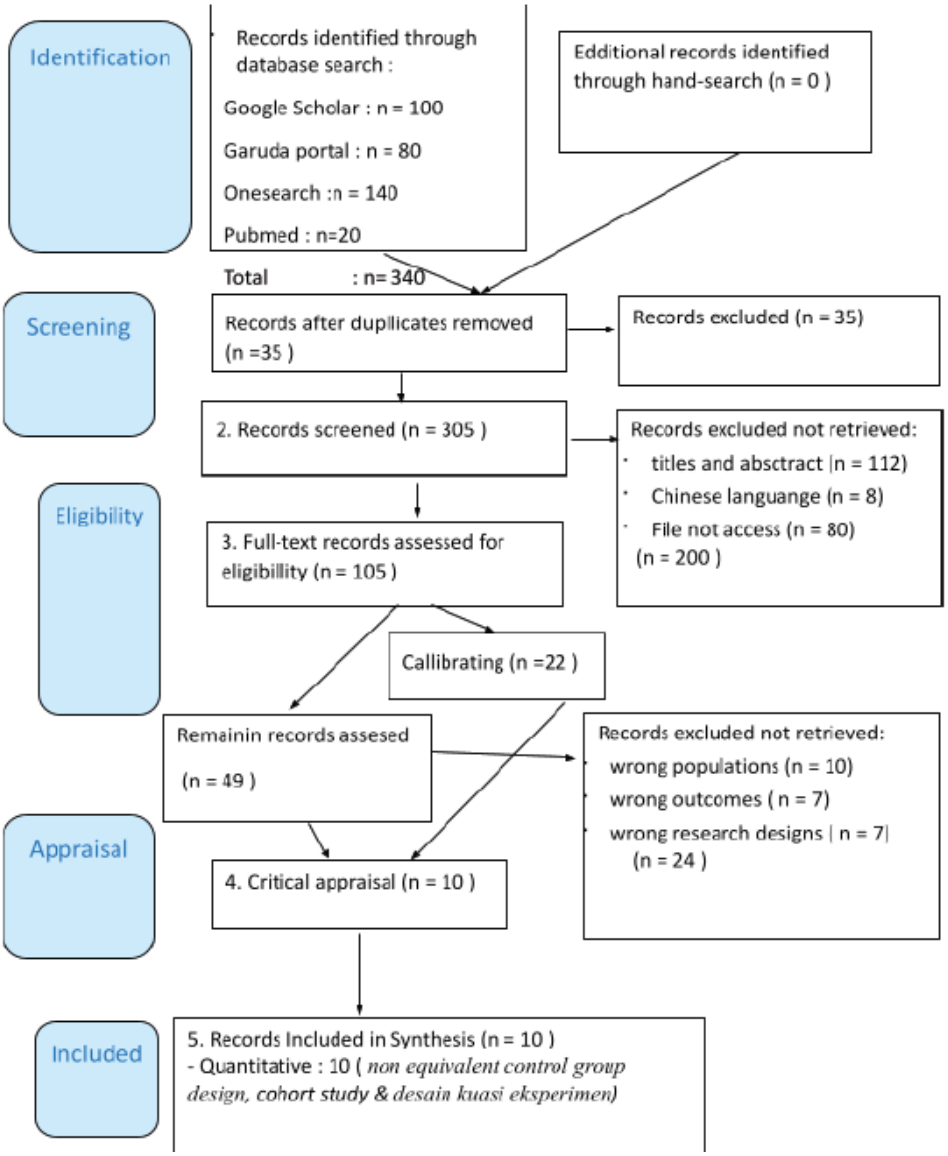
A legal search door is individualist or singular for all public collections that are usually only circulated in libraries, museums, and archives throughout Indonesia. In addition, the portal of this system also provides and facilitates access to international electronic sources (e-resources) which have also long collaborated with the Indonesian Library for all registered members.

4.Search

Keywords used in journal article searches include: "Breastfeeding Mothers OR Puerperal Mothers, AND Oxytocin Massage, OR Oxytocin Massage, AND Katuk Leaves OR Androgynous Sauropus (L.) Merr AND BREAST MILK OR Breast Milk"

5.Selection of Sources of Evidence

In this step, researchers use Zotero as a reference management software to conduct aticle selection such as duplication checks, title selection, abstracts and doing full text-reading. The findings of the number of articles and the filter process are described in the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) Flowchart (Tricco et al. 2018), as follows:



Charting Data

Table2.1. *Charting Data*

nber	Title/Author/ Year/Value	untry	Purpose	Types of Research	Data Collection	Participant/ Sample Size	Result
A 1	Penerapan Pijat Oksitosin pada Pasien Post Partun Normal di Wilayah Puskesmas Sambiroto Kedung Mundu Semarang	Indonesia	Carrying out the application of oxytocin massage in post partum patients Usual	descriptive study	Collected in the form of questionnaires, which are then analyzed	The respondents involved there were 3 normal post partum mothers who were given oxytocin massage	The test results showed that p-value = 0.000 (p-value ≤0.05) meaning that there was a significant or continuous influence between oxytocin massage in the intervention group carried out to stimulate breast milk production in post partum mothers.

A2	The effect of oxytocin massage and breast care on the increased production of breast milk of breastfeeding mothers in the working are of the public health center of Lawanga of Poso District (Triyansyah et al., 2020).	Indonesia	Know the effect of oxytocin massage and breast treatment on increased milk production.	Quantitative This pre-experiment was carried out through the design of One Group Pretest-Posttest.	Collected in the form of a questionnaire, which was then analyzed using Mc Nemar	Sampling was carried out through non-probability sampling and purposive sampling, 30 samples were obtained	It is known that breast milk production at the time of pre-intervention was not good in 18 respondents and quite a lot in 12 other respondents. Meanwhile, in the post-intervention period, breast milk production in 18 respondents who had previously produced poor breast milk then became sufficient in seven respondents, while the remaining 11 respondents still produced less breast milk. Oxytocin massage and breast care can increase breast milk production based on the frequency and duration of breastfeeding as well as the baby's weight.
A3	Pengaruh Pemberian Rebusan Daun katuk terhadap produksi ASI pada Ibu Nifas (Dolang e al., 2021)	Indonesia	To find out the effect of katuk Leaf Decoction on breast milk production in Puerperal Mothers	pre experiimental design with one group prestest design – posttest	Questionnaire	All puerperal mothers in the Suli Puskesmas Working Area as many as 30 people	The results of the study showed the effect of giving katuk leaf decoction on breast milk production in puerperium
A4	Pijat Oksitosin Terhadap Kuantitas Produksi As Pada Ibu Menyusui Yan Memiliki Bay Berusia 0-(Bulan (Sulaeman et al., 2019)	Indonesia	Knowing the effect of oxytocin massage on increasing breast milk production in breastfeeding mothers who have babies aged 0-6 months	Quasi-experimental.	With inclusion criteria including mothers having babies aged 0-6 months, both primiparous and multipara, not using drugs to increase breast milk production / breast milk boosters and being willing to follow treatment	The total sample was 33 people using one group pre-post test.	The result obtained from giving oxytocin massage to the mother was an increase in breast milk production by 0.52 where the previous amount was 1.12 and then to 1.64 after the intervention. So it can be concluded that there is a relationship between the

							administration of interventions in the form of oxytocin massage in the increase in breast milk production of breastfeeding mothers who have babies aged 0-6 months.
A5	Pengaruh Pijat Oksitosin terhadap peningkatan Produksi ASI (Apreliasari, H., & Risnawati R. 2020)	Indonesia	Knowing the effect of oxytocin massage on increased breast milk production.	Quasi-experimental with one group pre and post test design	Observation Sheet	73 respondents	The results of the study there is an effect of oxytocin massage on breast milk production, it can be concluded that there is an effect of oxytocin massage on breast milk production.
A6	Pemberian Ekstrak Daun Katuk terhadap Kelancaran ASI pada Ibu Menyusui (Rosdianah & S, 2021)	Indonesia	To find out the effect of giving katuk leaf extract on the smoothness of breast milk in breastfeeding mothers who have babies aged 0-6 months.	Quasi-experimental by design non equivalent control group design	Observation sheet, the first group was given katuk leaf extract then posttested while the second group without treatment and post-test was carried out	A sample of 30 people divided into 2 groups, namely control and intervention.	Based on the test results, it shows the influence caused by katuk leaf extract on breast milk production.
A7	Efektivitas Daun Katuk Terhadap Kecukupan Air Susu Ibu (Asi) Pada Ibu Menyusui di Bidan Praktek Mandiri (Bpm) Bd. Hj. Iin Solihah S.St., Kabupaten Majalengka (Suyanti & Anggraeni, 2020)	Indonesia	Knowing the effectiveness of katuk leaves against the adequacy of breast milk in nursing mothers.	Quasi-experimental with non equivalent control group design.	With observation sheets.	Purposive Sampling of 30 people consisting of 15 experimental groups and 15 control groups.	The results showed that the intervention of giving katuk leaves to mothers who were breastfeeding was proven to be effective in breast milk adequacy, so that mothers who drank the leaves every morning and evening for a week had adequacy in their milk levels and gradually breast milk production improved or increased.
A8	Efektivitas Daun Katuk *(sauropus androgynous)* terhadap	Indonesia	Knowing the difference in the effectiveness of katuk leaf	This type of research uses quasi-experiments with pre-test	Collected in observation sheets.	Purposive sampling with a total sample of 20 breastfeeding	The occurrence of an influence at the time of administration

	kecukupan ASI pada Ibu menyusui (Juliastuti, 2019)		decoction and katuk leaf extract (Sauropus androgynus) and katuk leaf extract against breast milk adequacy in breastfeeding mothers	design and post test design.		mothers.	of katuk leaf extract on the smooth milk of breastfeeding mothers who have and are breastfeeding babies aged 0-6 months. Thus katuk leaf extract can be recommended to mothers who have complaints or problems during the breastfeeding process.
A 9	Pengaruh konsumsi air rebusan daun katuk terhadap pengeluaran produksi ASI pada ibu nifas (Situmorang, 2019)	Indonesia	Knowing the effect of boiled water consumption of katuk leaves on the production of breast milk production in postpartum mothers.	This type of research uses quasi-experimental with cohort design.	Collected in the form of questionnaires.	The intervention sample group (consuming katuk leaf decoction) and the control sample group each totaled a sample of 16 respondents.	It was found that there was a noticeable influence when consuming decoction of katuk leaves on increasing breast milk production in puerperal mothers.
A 10	Hubungan pemberian sayur daun katuk terhadap kelancaran ASI pada ibu multipara (Triananinsi et al., 2020)	Indonesia	This study aims to find the relationship between independent variables and dependent variables, namely the provision of dau katuk vegetables with breast milk production.	The type of research used is Posttest only control design.	Using questionnaires	The population in the study was all multipara puerperal mothers with 30 samples.	The final results showed that there was a relationship between the provision of katuk leaf type vegetables in the smoothness or increase in breast milk production of multipara mothers.

6.Data Items

Researchers identified each relevant article on the topic of the review Comparing Oxytocin Massage With Katuk Leaves In Increased Milk Production.

7.Synthesis of Results

Based on the results of the article review process in three databases, a total of 340 articles were obtained that were relevant to the scoping review question. There are 100 articles from Google Scholar, 90 articles from Garuda Portal and 150 articles from Onesearch. Furthermore, all articles are imported into Zotero's reference management. It detected as many as 35 duplicate articles so that the article was deleted with the final number being 305 articles, then filtering was carried out based on the title and abstract related to "Comparing Oxytocin Massage With Katuk Leaves In Increased Breast Milk Production". A total of 200 articles were irrelevant and issued, then 105 articles were obtained to access the full manuscript and re-filtered according to the framework, then several articles were obtained that did not match the inclusion criteria, the purpose of the review, samples and research results and only 10 articles were appropriate.

3. Results and Discussion

3.1. Selection of Sources of Evidence

Based on search results from three databases using keywords via PICO framwork. Furthermore, the screening process is carried out using zotero. The article screening stages are explained in the form of a Prisma Flow Chart and 10 articles that are considered to meet the inclusion and eligibility criteria are used for assessment by conducting a Critical

Appraisal using the Mixed Methods Appraisal Tool (MMAT) (Quan Nha HONGa et al. 2018).

3.2. Characteristics of Sources of Evidence

A.Characteristics of Articles by Country

The characteristics of the article on this scoping review are based on the country of Indonesia.

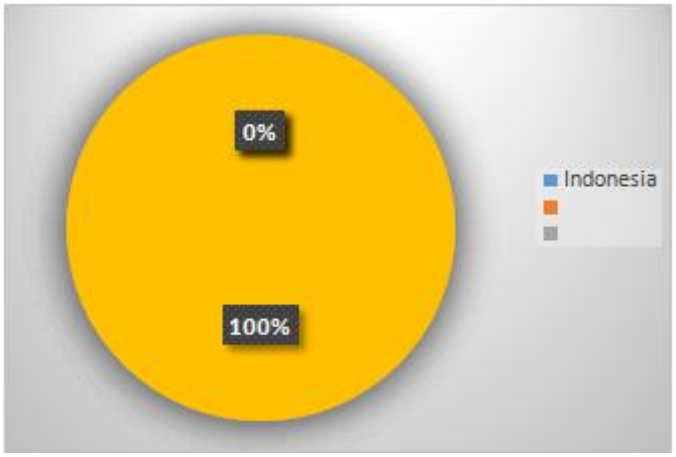


Figure2. *Characteristics of Country Names*

Based on the diagram above, it explains the characteristics of the article from developing countries, namely Indonesia.

B.Characteristics of Articles Based on Research Design

The characteristics of the article used in this scoping review are based on the design of the research, namely qualitative and quantitative research.

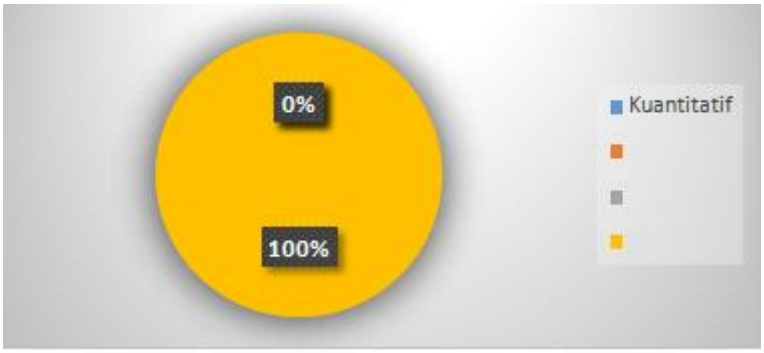


Figure3. *Research Design Characteristics*

Based on the diagram above, it explains the characteristics of the article based on the research design of 10 quantitative articles with a quasi-experimental design [10].

3.3. Critical Appraisal within Sources of Evidence

Researchers assess articles using a tool, namely the Mixed Methods Appraisal Tool (MMAT). MMAT consists of various reviews including the study of qualitative methods then continued with quantitative methods and mixed methods or often called mix-methods. This tool will allow to conduct a test assessment regarding the methodological quality of five categories of studies, such as: qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies, and mixed method studies (Quan Nha Honga et al. 2018). In this scoping review, the research using MMAT tools consisted of 10 articles using a quantitative approach with a quasi-experimental design. As a result of the critical appraisal there are 7 articles [1], [4], [6], [7], [8], [9], and [10], with the answer "YES" to all the question items in the Mixed Methods Appraisal Tool (MMAT) answered well. The article has data sources in the full article both from the purpose, type of research, design, sample, data collection method, sampling technique, instruments of each article validated so as to reduce the error

rate and research results. The poor results found in articles [2], [3] and [5] have shortcomings, namely that participants do not match the type of research and there are results that have not answered from research questions.

3.4. Results of Individual Sources of Evidence

The following are some of the themes that emerged from the Scoping Review review conducted by researchers:

Table3. *Mapping Themes*

Theme	Subthemes	Article
Oxytocin Massage	1.Benefits for mothers and babies	1,2,3,4, &5
	2.Massage Technique 3.Mechanism	2 and 5 1 2 4
Katuk Leaves	1. Benefits for mothers and babies	6,7,8,9,10
	2. Processing techniques 3. Content 4. Effectiveness	9 10 6 and 7

3.5. Synthesis of Evidence is More thorough Per Sub Theme

Based on the results of the review of 10 articles that are in accordance with the purpose of the scoping review, several articles were obtained that discussed related themes, namely oxytocin massage and katuk leaves which can increase breast milk production.

a. Benefits for mothers and babies

According to artike A2 In addition to launching breast milk is to relax the mother, prevent breast cancer, ensure the cleanliness or hygiene of the nipples. This oxytocin hormone can be obtained when the baby sucks the mother's nipples. this is able to increase the inner attachment between mother and baby. in addition to health effects, okytosin massage has a good psychological effect for both mother and baby. Oxytocin massage is carried out twice a day, every morning and evening. In article A1 This massage is done for 15 to 20 not always should be done by health workers. Where massage using the oxytocin massage process can be done by the intervention provider in the form of a husband or family of the patient who has been trained or given information in advance about how to massage appropriately, comfortably and safely for the mother. The existence of the nuclear family, namely: the husband and family are not only to help do massage technicians to the mother, but also to provide support or support emotionally or psychologically, which will then arouse the mother's self-confidence and will reduce the anxiety experienced. This stage will help stimulate the occurrence of a hormone production in the form of: oxytocin and help the occurrence of uterine involution.

b. Massage Techniques

Article A3 explains how to do a massage in the spinal area to increase the production of the hormone oxytocin, remove the upper mother's clothes, the mother sits in the fore standard folding her arms on the table in front of her and putting her head on her arm. Applying a towel, smearing both palms with oil/baby oil, massaging along both sides of the mother's spine using the hands of the masseuse.

c. Mechanism

In the A4 article the hormone from oxytocin is produced through the posterior pituitary gland or often referred to as neurohypophysis. Where when the baby performs suction movements on the mother's areola, this intervention will send a code in the form of stimulation to the neurohypophysis to produce and release oxytocin intermittently. The next stage is: oxytocin will enter the mother's bloodstream and stimulate the muscle cells around the alveoli to contract making the milk that has accumulated in it flow into the ductus ducts. Through the bloodstream, this hormone also goes to the uterus, causing contractions. The contractions seem to squeeze the milk that

has been made, out of the alveoli and into the duct system and then flow through the lactiferus duct into the baby's mouth. Oxytocin will work to spur the breast milk production reflex or oxytocin reflex which is also called "milk let down/milk ejection reflex (MER)/let-down reflex (LDR)"

d. Benefits of katuk leaves

Katuk leaf extract has various types of benefits that affect daily life. The extract contained in the part of the inside of the katuk leaf has a variety of properties that serve to protect part of the cell structure, then it will proceed to the stage of increasing the effectiveness of vitamin C, anti-inflammatory, carrying out prevention of bone loss, and as part of natural antibiotics. Another function of katuk leaves is to play a direct role in the part of antibiotics by interfering with the work function of microorganisms such as bacteria or viruses and can also increase the immune system in parts of the body (Syahadat & Siregar, 2020).

e. Processing Techniques

The process of preparation and manufacture of 90% Ethanol Extract owned by Katuk Leaves amounts to 1000 g of embodiment of dry katuk leaf powder which is then extracted again with 3000 mL of 90% ethanol through the stages of the maceration method within a period of 5 days. The residue will then be obtained and then re-massied as many as 2 times repeated stages using 2000 mL of 90% ethanol at each stage. The resulting filtrate will be combined and then solubility will be carried out using the evaporation process using a vaccum rotary evaporator at a temperature setting of 40 ° C then will be continued using an oven at the same temperature until an extract with a thick consistency is formed. Where the viscous extract obtained will be weighed and the chemical compounds contained in ethanol extract 90% katuk leaves (Sauropusandrogynus (L.) Merr.) are part of chemical compounds that are classified as alkaloids, triterpenoids, saponins, tannins, polyphenols, glycosides and flavonoids (Susanti et al., 2015)

f. Effectiveness and content

In article A8, a decoction of katuk leaves averaged a baby's weight gain of 259 grams while in katuk leaf extract, an average baby weight gain of 182 grams was obtained, which showed the result that katuk leaf decoction and katuk leaf extract had the same level of effectiveness in meeting breast milk adequacy.The content of galactagogue in katuk leaves has an important role. The galactagogue content is believed to be able to trigger an increase in breast milk production. The content of steroids and polyphenols in katuk leaves can increase levels of the hormone prolactin. Prolactin is one of the hormones that affects breast milk production.'

g. Comparison of oxytocin massage and Katuk leaf extract in terms of socioeconomics

Oxytocin massage is a solution to cope with the uneven production of breast milk. Oxytocin massage is a massage along the spine (vertebrae) from the 5th to the 6th rib, which releases the postpartum hormone prolactin and is an attempt to stimulate oxytocin (Rahayu, 2016).This massage is performed to stimulate oxytocin or milk discharge reflex. Mothers who get oxytocin massages feel more relaxed (Monika, F.B. Monika, 2014). Mothers who get an oxytocin massage only need support from the family, making it easier for health workers to do it.

Indonesians simply consume katuk leaves as a vegetable side dish in their daily eating menu. For urban communities who are forced to always get fresh katuk leaves, this is difficult to do and requires preparation in a more convenient form such as tablets, extracts, pills, and effervescent tablets. (Dewi, et al., 2014). Unlike the case with mothers who have a lower middle income, they only boil Katuk leaves alone without spending money to buy tablets, extracts, pills, and effervescent tablets.

Oxytocin massage in terms of economy is more efficient than extracting katuk leaves. This is evidenced by the action of oxytocin massage can be done by everyone including the husband and does not know the time. In terms of equipment

and materials it is quite simple. Oxytocin massage does not require special training for health workers. The implementation of oxytocin massage is also an empowerment for husbands and families to support the success of breastfeeding. As for the extract of katuk leaves, their processing requires special techniques and technologies that require considerable costs. Processing experts or special human resources are needed to be able to process katuk leaf extract.

4. Limitation of The Study

The limitation in the scoping review is the lack of literature that discusses the complete processing of katuk leaf extract.

5. Conclusions and Suggestions

Conclusions:

The use of oxytocin massage and katuk leaves can increase the amount of breast milk production for breastfeeding mothers. The importance of breastfeeding can be positive for the health of both mother and baby. Oxytocin massage techniques make the mother feel relaxed so that the mother's body is aroused to produce the hormone oxytocin. This hormone is useful for facilitating the production of breast milk. Katuk leaves contain polyphenyls and steroids that play a role in prolactin reflexes or stimulate the alveoli to produce breast milk. The implementation of oxytocin massage and the use of katuk leaves can be a solution for nursing mothers to successfully provide exclusive breastfeeding. The benefits of oxytocin massage and katuk leaves have a health and economic impact.

Recommendations:

1.Health review

Massage of oxytocin and katuk leaves have similar benefits as a booster of breast milk production.

a.Target: health workers, especially midwives as service providers for breastfeeding mothers

b.Proposals

HEALTH REVIEW	
OCXYTOCIN MASSAGE	**KATUK LEAVES**
Application of standard operating procedures (SOPs) o n oxytocin massage in health care facilities	Socialization of the benefits of katuk leaves as a bre ast milk booster in the class of pregnant women
Application of oxytocin massage as a mandatory servic e for mothers in puerperium in health care facilities	Making videos as a means of learning mothers and families about the use of katuk leaves
The existence of a pregnant class that facilitates the hus band to do oxytocin massage	Procurement of socialization of the benefits of katu k leaves for cadres in rural areas
Giving oxytocin massage counseling to mothers who d o antenatal care	Promotion of planting katuk leaves as a breastfeedi ng-friendly plant
Training for cadres on oxytocin massage	

2.Social Review

Utilizing something that is /closest around us effectively, precisely and efficiently

a.Target: Husband &stork, Health Workers, Environment

b.Proposals

SOCIAL REVIEW	
OCXYTOCIN MASSAGE	**KATUK LEAVES**
Maximum utilization of a positive life with environmental fri endliness (health workers teach husbands about oxytocin ma ssage)	Maximum utilization of positive life with env ironmental friendliness (using / utilizing katu k leaves around)
Establishment of oxytocin massage counseling in each practi ce midwife	Maximum utilization of the environment by g reening the planting of katuk leaves around
With movements of a specific nature can give rise to the clos eness of the two (husband & wife)	Expand O2 production
With oxytocin massage, a new atmosphere appears in life	The beauty of the environment
Establishing harmonization of the two (husband & wife)	Improving health due to planting activities
With oxytocin massage can understand the things that are in both (husband & wife)	Bringing out a new and healthy environment
Bringing the relationship closer to husband and wife More re cognizing the physical and psychological conditions of the t wo (husband & wife)	Greening for the environment

3.Psychological Review

Psychologically, oxytocin massage and dau katuk extract can arouse mother's self-confidence and reduce anxiety, thus helping to facilitate breast milk.

a.Target: breastfeeding mothers

b.Proposals

PSYCHOLOGICAL REVIEW	
OCXYTOCIN MASSAGE	**KATUK LEAVES**
Providing oxytocin massage services to increase breast milk production.	Providing maternal counseling re garding good katuk leaf extract t o be used as a natural ASi booste r
Provide counseling on the psychological benefits of doing the oxytocin m assage. Increases comfort in nursing mothers	Providing online and offline cou nseling on the benefits of katuk l eaf extract for a natural breast mi lk booster.
Providing education for pregnant women about oxytocin massage in mot hers who do ANC that oxytocin massage can accelerate the healing of pla cental implantation scars, prevent post partum bleeding, can accelerate th e occurrence of the uterine involution process and improve psychological relationships between mothers and families.	Procurement of standby villages for breastfeeding mothers by pla nting plants such as katuk throug h community service work.
Empowering the husband to make the mother confident to do oxytocin m assage	Providing education on the corre ct processing of katuk leaf extrac t.
The existence of oxytocin massage therapy is integrated with free service s.	Counseling on the manufacture o f TOGA (Family Medicinal Plant s) specifically for natural breast milk boosters
The addition of other service combinations such as puerperal mother bod y massage to make mothers interested in participating in this service	Providing education for pregnant women about katuk leaf extract t o mothers who do ANC that katu k extract has benefits as a natural breast milk booster.

4.Review the Economy

Economic factors from oxytocin massage and katuk leaf extract affect the mother's welfare, if the mother's economic condition is not good, the needs that the mother wants to support in facilitating breast milk cannot be met.

a. Target: breastfeeding mothers

b. Proposal

ECONOMIC OVERVIEW	
OCXYTOCIN MASSAGE	**KATUK LEAVES**
It only needs support from the family, health workers to help massage oxytocin from an economic point of view does not burden the mother.	When used as extra katuk leaves such as pills, tabl ets, capsules from an economic point of view it co sts money to buy them.

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