

# Health Behavior and Social Support in Postpartum Mothers Treatment in Ba'ukup Tradition in Maluku

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## ABSTRACT

The maternal mortality rate is still high in Indonesia and one of the priorities of government agendas to decrease, one of them is giving good treatment to Postpartum Mothers. This is very important because in the Postpartum periode, there is a risk to get bleeding and infection that has an impact on maternal death. Many Postpartum Mothers' treatment is based on local wisdom, but not all give benefits to Postpartum Mothers. The aim of this study was to analyze Ba'ukup Tradition as a Postpartum Mothers Treatment Based on Local Wisdom in Negeri Luhu, Huamual, Maluku. This study used Qualitative method with ethnographic approach. The informants were 8 people which consisted of 1 supporting informant (Traditional Midwife/ Mama Biang), 1 Midwife as a key informant and 6 ordinary informants were selected purposively with the criteria of Mothers who are carrying out Ba'ukup. Thematic data analysis and data validity used triangulation technique. The results showed that Ba'ukup tradition is an ancestral heritage felt psychically and beneficially by Postpartum Mothers such as feeling more relaxed, sleeping better, sweating and helping to increase breast milk production. Meanwhile, Ba'ukup tradition is a local wisdom in Postpartum Mothers treatment so that in its implementation, it requires the assistance of health workers because during the Postpartum period, there is a risk to get bleeding and other complications. It is suggested that there are persuasive approach and communication between health workers and the society in order to build a harmonious trust in local traditions and health services.

**Key words:** Postpartum, Tradition, Ba'ukup, Health.

## INTRODUCTION

Indonesia is rich in local cultural diversity which is still preserved from generation to generation. Culture is an integral part of human life and way of life. However, there are many cultures related to beliefs that are contradicted to health because sometimes society does not realize it can have other impacts that actually worsen health problem.

Many beliefs and knowledge are generated from generation to generation, especially regarding the concept of health and illness has both positive and negative impacts. This is correlated with the traditional understanding had by some Indonesian society regarding healing and treatment during pregnancy, childbirth, Postpartum period and treatment as well as new born baby treatment.<sup>1</sup>

The Postpartum period is recovery period after giving birth until all female reproductive organs recover and get ready for the next pregnancy. This Postpartum happens for 6-8 weeks after childbirth. There are many things that need to be considered at that time such as temperature, Lochia rubra, potential for bleeding and other things that can decrease Mothers' condition. In addition, Mothers' mental condition really needs to be monitored and supported so that they can recover their condition to be normal psychologically. The importance of Postpartum treatment is because it is one of the most common causes of maternal death occurs during the Postpartum period such as bleeding.<sup>2</sup>

Various Postpartum treatments have been carried out traditionally by Indonesian society affected by cultural factors which are usually carried out by

the family of Postpartum Mothers.<sup>3</sup> The Postpartum period is very important because it is a critical phase in Mothers and new born baby's life. This period has great health risks either for Mothers and their baby. Therefore, the treatment is very important nowadays, it is not only for survival but also for the Mothers and baby in the future. Changes that occur in this period will determine the prosperity for their health in the future.<sup>4</sup>

The data from the Directorate General of Public Health, Ministry of Health of the Republic of Indonesia in 2021 explained that there were 7,381 maternal deaths and one of the biggest causes was bleeding and hypertension. This figure has increased from 2020 with total of 4,627 maternal death cases. The highest number of cases was in West Java Province for 745 cases. The total of maternal deaths in Maluku Province in 2016 was 165/100,000 KH, while it was 138/100,000 KH and there were 61 maternal death cases in 2018. The maternal mortality rate in Maluku Province in 2019 was still high at 114/100,000 with total of 52 maternal death cases. There was an increase for 70 maternal death cases in 2020 and Maluku Province ranked 18th of 34 provinces in Indonesia.<sup>5</sup>

Postpartum treatment is traditionally carried out by society in terms of massage, consuming traditional beverage, treatment with traditional ingredients, Prohibition for certain food and Prohibition for certain activities. Experience, tradition, beliefs that have been generated from generation to generation by society become an example for the next generation to use traditional treatment including not consuming prohibited foods for such as big

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fish which based on the belief, it can cause bleeding, eating fruit that contains water can cause vaginal discharge, this habit has been carried out during pregnancy.<sup>6</sup>

Many traditions have good impact on health such as massaging Mothers' back gently after giving birth to make the Mothers feel more relaxed and help to accelerate the process of breast milk production.<sup>7</sup> Even though there are traditions enough that are carried out and contradicted to health, there are many habits that have been preserved from generation to generation just to carry out rituals because they are afraid that it will have negative impacts on their lives if they do not carry out these traditions.<sup>8</sup> It will be better if the local society know the meaning of tradition because preserving tradition is local wisdom as long as it is not contradicted to health. Traditional treatment practices happen a lot and it is warned that they could cause bad things, so health workers must recognize and be aware of cultural background of the local society and always provide assistance so that people can trust health care practices.<sup>9,10</sup> Postpartum treatment in Indonesian society generally aims to provide comfort to the Mothers after struggling in giving birth. It is just like mararang tradition in Toba Samosir regency, this tradition is usually carried out for 40 days by burning wood or charcoal until it becomes coals and then put it beside or under the bed of Mothers and baby. The goal is to provide a warm and relaxed feeling for Mothers and baby as well as recovery after giving birth.<sup>11</sup>

As for treatment effort, each region or society group has different style and culture as well as show own its characteristics. One of the

treatment practices of for Postpartum Mothers that is still preserved at this time is Ba'ukup tradition. This tradition originates from Negeri Luhu, Huamual Regency, Maluku Province.

Ba'ukup tradition is a traditional treatment for Postpartum Mothers using evaporation technique from boiling water which contain combination of local herb and spice plants. Herb and Spices such as eucalyptus leaves (*Melaleuca cajuput*), clove leaves (*Syzygium aromaticum*), lemon grass (*Cymbopogon citratus*), ginger (*Zingiber officinale*), castor oil leaves (*Jatropha curcas*), soursop leaves (*Annona muricata*) and nutmeg leaves (*Myristica fragrans*). All of these ingredients are mixed and cooked until they give fragrant scent by local local midwives called mama biang, but Ba'ukup procession can be carried out by the family of Postpartum Mothers. Based on the first data obtained, the total of pregnant women in Negeri Luhu in 2021 was 248 people and usually Ba'ukup tradition is carried out after giving birth to accelerate the treatment and provide energy for Postpartum Mothers to be stronger.

Non-pharmacologically, herbs and spices used such as eucalyptus oil leaves can provide warm sensation, give relieving pain and fatigue sensation. Eucalyptus leaves are known as herbal medicines and can retard the growth of bacteria.<sup>12</sup> Likewise, clove leaves can boost the immune system, lemongrass can reduce stress in their opinion, the content of ginger, castor leaf, and soursop leaves are also claimed to help in producing breast milk and nutmeg leaves are also trusted to help in producing breast milk and nutmeg leaves are also trusted to be able to remove toxins or impurities in the body. The compound

**Table 1: Characteristics of informant.**

No	Name	Age	Education	Occupation	Description
1	RS	39	Bachelor	Teacher	Ordinary Informant
2	RW	28	Senior High School	Housewife	
3	SS	26	Senior High School	Housewife	
4	BP	59	Elementary School	Housewife	
5	S	57	Elementary School	Housewife	
6	HH	54	Junior High School	Housewife	Supporting Informant
7	J	75	Elementary School	Housewife	
8	SN	35	Associate's Degree	Civil Servant	

**Table 2: Synthesis of information on social support for Ba'ukup tradition based on information sources.**

No	Informant	Response
1	Postpartum Mothers	Do not know the history and purpose of Ba'ukup but feel the impact in such as feeling fresher, more comfortable, sleeping better, calm mind, more breast milk after getting Ba'ukup.
2	Family	Ba'ukup is important if you have given birth
3	Mama Biang (Traditional Midwife)	Since ancient times, Mothers who have given birth should get ba'ukup to clean the dirty blood after giving birth and remove the dirty sweat that has accumulated since pregnancy.
4	Social Figure	Ba'ukup in Negeri Luhu society has been a tradition for a long time and the tradition continues to be preserved until this day as one of characteristics.
5	Religious Figure	In carrying out Ba'ukup, there is no ritual that is contradicted to Islam religion, it is only held after giving birth.
6	Health Worker	Ba'ukup uses natural ingredients that are commonly consumed by society. So far, there has never been any case or bad impact for health happen during Ba'ukup process.

**Table 3: Thematic analysis of informants' statements regarding the perceived benefits of ba'ukup procession.**

No	Phase	Interpretation		Synthesis Analysis
		Before ba'ukup	After ba'ukup	
	Postpartum Mothers	<ul style="list-style-type: none"> <li>Tired</li> <li>Feel hot</li> <li>Body aches</li> <li>Less comfortable</li> <li>Lazy to act</li> <li>Skin feels sticky</li> <li>Sleepy</li> <li>Body limp and smell fishy</li> </ul>	<ul style="list-style-type: none"> <li>Sweating</li> <li>Powerfull (strong)</li> <li>Body feels lighter</li> <li>Body feels Fragrant</li> <li>appetite increases</li> <li>Relaxed Milnd</li> <li>Breast Milk Production increases</li> <li>Sleep better</li> </ul>	The society in Negeri Luhu preserves Ba'ukup tradition because it is felt to have a psychological effect on Postpartum Mothers so that it forms positive response as well.

**Table 4: The plants used in Ba'ukup tradition.**

Types of plant	Benefits (from various sources)
Eucalyptus leaves ( <i>Melaleuca cajuput</i> )	Anti-Bacterial, Anti-inflammatory and relieve pain. <sup>17</sup>
Clove leaves ( <i>Syzygium aromaticum</i> )	Anti-bacterial <sup>18</sup>
Lemongrass ( <i>Cymbopogon citratus</i> )	Anti-inflammatory as aromatherapy (boost mood, reduce stress) <sup>19</sup>
Ginger ( <i>Zingiber officinale</i> )	Anti-oxidant, anti-inflammatory, improving blood circulation, lowering blood pressure and cholesterol, reducing pain, stabilizing blood sugar, accelerating breast milk. <sup>20</sup>
Castor Leaves ( <i>Jatropha curcas</i> )	Anti-microbial, relieve pain, vaginal discharge <sup>21</sup>
Soursop Leaves ( <i>Annona muricata</i> )	Anti-oxidant, relieve pain, reduce nausea, stimulate appetite, flatulence, stimulate sleep, relieve stress. <sup>22</sup>
Nutmeg Leaves ( <i>Myristica fragrans</i> )	Immunity boosting, digestive health, anti-inflammatory, anti-fungal, anti-bacterial, improves blood circulation. <sup>23</sup>
Tamarind	
Brown Sugar	Reduce pain, antiseptic, prevent anemia, increase energy, high in mineral, reduce discomfort after giving birth.



**Figure 1:** Spices and herbs that have been boiled and a seat for the Postpartum Mothers surrounded by mat and covered with a thin sarong after the Mothers is on the mat to do Ba'ukup for 15-30 minutes

found in clove leaves namely eugenol has function as an antibacterial.<sup>13</sup> Ba'ukup tradition in Negeri Luhu Society is preserved because there are many positive effects empirically felt by Postpartum Mothers, but it is feared that this will have an impact on misalignment of public trust in health services. If people believe in their traditions, then they consider this to be true, as the first data found that Ba'ukup tradition provides faster recovery than treatment through health services. The purpose of this study was to analyze Ba'ukup Tradition as a practice of Postpartum Mothers Treatment in Negeri Luhu Society, Huamual, Maluku.

## METHOD

The type of this study used was descriptive qualitative with ethnographic approach which intends to explore Ba'ukup Tradition as the Practice of Postpartum Mothers Treatment in Negeri Luhu society. There were 8 informants which consisted of 6 main informants who were selected using purposive sampling technique such as Ba'ukup actors, 1 supporting informant namely Biang Mothers (traditional midwife) and 1 key informant from health worker (midwife). The data that have been collected by observation technique, in-depth interview and documentation were then reduced, categorized, analyzed thematically and presented in narrative form.

## RESULTS

### Characteristics of informants

This study was conducted in Negeri Luhu, Huamual, Maluku. The sources of information obtained have been previously selected in order to obtain in-depth information. This study was carried out for 1 month by observing the implementation of Ba'ukup, interviewing informants deeply and documenting the activities during conducting this study. The characteristics of informants, as follows:

Based on table 1, it can be described that the age of informants is in the productive category, there are 3 young Mothers and 3 Postpartum Mothers that play a role in implementing Ba'ukup. Age describes

experience in carrying out Ba'ukup tradition and has formed its own meaning for informants. The variety of education of the informants describes the understanding and knowledge of Ba'ukup also varies because people who are coming from low to high education still preserve this tradition. The occupation of main informants in this study are generally housewife and only 1 person who work as a teacher in which it indicates that carrying out the tradition is not due to being busy at work but it is part of belief.

The informant's response regarding Ba'ukup tradition generally accepts and receives social support because it is an ancestral heritage and consider the benefits felt by the Postpartum Mothers, the following is the informant's statement which have been adapted in Indonesian language:

Based on table 2, the abstraction of information obtained from Ba'ukup tradition can be said that the role of the social environment greatly influences health behavior. Someone who has just given birth needs family support, especially in emotional adaptation to its status as Mothers. One of supporting forms received by Postpartum Mothers in Negeri Luhu is carrying out Ba'ukup procession which has positive effect on the psychology of Postpartum Mothers.

## DISCUSSION

Ba'ukup tradition is carried out by of Negeri Luhu Society to accelerate Postpartum recovery by using evaporation technique of concoction which contain spices and herbs from nutritious plants such as eucalyptus leaves, clove leaves, nutmeg leaves and others which have been boiled and then put near with Postpartum Mothers who are covered with mat in the surrounding. Ba'ukup tradition which is carried out for 15-30 minutes is a tradition that was born from the habits of society which means that this tradition was born from below category namely by society itself for long time ago.

This tradition is carried out to recover the health of Mothers who have just given birth by heating the body during Postpartum period

so it does not cause health problems. Based on information collected from Postpartum Mothers and their family who carry out Ba'ukup, the perceived benefits are as follows.

Based on the results of study, Ba'ukup tradition carried out on Postpartum Mothers has perceived benefits such as sweating which is interpreted as the discharge of body impurities so that the body becomes not heavy and the body smells good. The steam from Ba'ukup concoction causes the temperature in the chamber of mat increases, so the body is sweating. It is believed that the discharge of sweat is dirty sweat that has been stored for a long time since the beginning of pregnancy. The society understands that pregnant Mothers are really supervised in their activity so that the Mothers do not get tired. Lack of activity during pregnancy makes pregnant Mothers not to get sweat. After giving birth and doing Ba'ukup, then the dirty sweat comes out and the Postpartum Mothers' body feels lighter, does not smell fishy, and feels healthier. Ba'ukup can be interpreted as a traditional sauna.

In carrying out Ba'ukup, the Mothers is surrounded by a sheet of mat so that the hot steam makes it easier for more sweat to come out, this condition is called as detoxification which removes toxins from the tissues under skin. After Ba'ukup process, the Mothers then drinks a concoction that Negeri Luhu Society called *bumbu ruja'* from boiled brown sugar, tamarind, pepper and ginger. The *bumbu ruja'* is believed to increase the strength of Postpartum Mothers after getting Ba'ukup so that her stamina will be better. Even though this tradition is not accompanied by adequate knowledge and understanding from the society regarding the effects of excessive sweating, drinking *bumbu ruja'* will replace fluid that come out due to Ba'ukup process. In terms of health, steaming or sauna can cause dehydration so you have to drink a lot to replace excessive sweating. So, Luhu society carry out Ba'ukup tradition unconsciously and consume *bumbu ruja'*, provide traditional care which can have good effect on Postpartum Mothers. Similar treatment for Postpartum Mothers is also carried out in Aceh society called *madeung* and *sale*, this process is carried out in the second day after giving birth to accelerate the recovery process for Postpartum Mothers.<sup>14</sup> The heat from the steam in Oukup process of Karo people has relaxing effect and sweat on the body can come out, the body feels lighter and more comfortable.<sup>15</sup>

Postpartum Mothers experience various positive physical and psychological effects such as a calmer mind, sleep better, appetite, and increased breast milk production. The herbs and spices used can be as aromatherapy which provides calming effect especially for Mothers who give birth for the first time and need psychological adjustment to their new role as Mothers. Happy as well relaxed feeling as well as rest enough help Mothers to optimize the hormone oxytocin and work of alveoli cells so that it stimulates breast milk production. Changing the role of being Mothers from the taking in phase or a addiction period that only focuses on themselves need support of people around them so that the Mothers feel more comfortable and can go through this period comfortably. Therefore, Mothers can enter the taking hold phase and the letting go phase which are accepting their responsibilities and roles as Mothers. This self-adaptation process is also one of the objectives of carrying out Ba'ukup by Luhu society through evaporation using natural ingredients. One of the objectives of carrying out local tradition is perceived benefits, not just being carried out as an obligation relief. Preservation of ancestral heritage in traditional medicine for Postpartum Mothers is based on experience and belief about the benefits of the medicinal plants used.<sup>16</sup>

Based on various studies, the contents of plants used in the Ba'ukup tradition give many benefits for Postpartum Mothers, this is one of the reasons for the sustainability of this tradition. Even though the birth process is assisted by health workers, the treatment for Postpartum Mothers through Ba'ukup tradition is still carried out because this

tradition is not to show characteristics, but it is considered to provide benefits for Postpartum Mothers. According to local health workers, Ba'ukup sancertral heritage from that was is by Luhu society and until now there is no negative impact during the Ba'ukup process until now. The Luhu society also continue to use health services if there is condition that require medical treatment.

According to Mama Biang, Ba'ukup can help to increase the production of breast milk (ASI). This can be scientifically explained that if Postpartum Mothers feel calm, relaxed, get support and feel not stressed as a result it will affect breast milk production and the Mothers' metabolism will be better. Family support and rest enough will give positive emotions and stimulate an increase in the production of the hormone oxytocin so that breastfeeding becomes smooth.<sup>24</sup> Ba'ukup procession is a form of family attention and support for Postpartum Mothers, especially Mothers who have got Ba'ukup feel their appetite also increase, this is a positive thing in helping the formation of breast milk.

Based on the analysis of researcher in the field, the preservation of Ba'ukup tradition cannot be separated from social support from the local society and also as one of the needs in the life cycle of Negeri Luhu society. The existence of tradition is not only related to the knowledge of society, but it includes harmonious relationship among humans, customs and nature so that the tradition is taught, practiced and passed into the next generation.<sup>25</sup> Preserving local tradition using local plants also conserves natural resources and supports the survival of society Because human life is basically related to the natural environment as an ecosystem.<sup>26-28</sup>

Based on the benefits felt by Postpartum Mothers and Ba'ukup procession that uses natural ingredients that are not harmful to health and not contradicted to their religion. Thus, it should be preserved and assisted by health workers so that strong and harmonious relationship is built among the society's belief in Ba'ukup tradition and trust in health services in the treatment of Postpartum Mothers.

## CONCLUSION

Based on the results of study on Ba'ukup tradition as the treatment of Postpartum Mothers based on local wisdom in Negeri Luhu, Huamual, Maluku, it can be concluded that Ba'ukup uses natural plants and has many benefits in the health aspect felt by Postpartum Mothers, so further study is needed regarding materials used and its contents and composition. The implementation of Ba'ukup procession requires assistance from health workers because the Postpartum period has risk to experience bleeding and other complications.

## SUGGESTION

Culture is really related to health, so that an approach by health workers is needed in recognizing local cultures and conducting persuasive communication between health workers and society in order to build harmonious trust in local tradition and health service.

## REFERENCES

1. Kasnodihardjo, Kristiana L. Cultural Practices of Pregnancy Care in Gadingsari Village, Yogyakarta. *J Reprod Health*. 2013;3(3):2.
2. Sulfianti S, Nardina EA, Hutabarat J, Astuti ED, Muyassaroh Y, Yuliani DR, *et al*. Midwifery Care During the Postpartum Period. Our Writing Foundation. 2021.
3. Mirawati, Adila DR, Niriyah S. Description of the attitude of Postpartum Mothers' attitude on malay cultural beliefs. STIKES Hangtuh Pekanbaru. 2019.
4. Mirawati M, Adila DR, Niriyah S. Description of the attitude of Postpartum Mothers' attitude on malay cultural beliefs. *J Ners Indones*. 2020;10(2):123.

5. Indonesia TRC. Indonesia Health Profile 2021, Ministry of Health of the Republic of Indonesia. Available at: [Ttps://Pusdatin. Ministry of Health. Go.Id/Resources/Download/Pusdatin ...](https://pusdatin.kemkes.go.id/resources/download/pusdatin...); 2022.
6. Yufuai AR, Widadgo L. Cultural Practice of Yepase Village Ethnic Related to Pregnancy, Postpartum and Infant Care in Depapre District, Jayapura Regency. *J Health promotion*. 2013;8(2):104.
7. Idris FP, Kanang B, Adriani F, Asrina A. Mothers' behavior in breastfeeding in Gowa Regency, South Sulawesi (study on Motherswith insufficient breast milk production). *Gac Sanit*. 2021;35(2):S472-4.
8. Asrina A, Palutturi S, Tenri A. Dole-dole tradition in health seeking behavior of buton society, southeast sulawesi. *Indian J Public Heal Res Dev*. 2018;9(7):270-4.
9. Altuntuğ K, Anik Y, Ege E. Traditional practices of Mothers in the Postpartum period: Evidence from Turkey. *Afr J Reprod Health*. 2018;22(1):94-102.
10. Kaewsarn P, Moyle W, Creedy D. Traditional Postpartum practices among Thai women. *J Adv Nurs*. 2003;41(4):358-66.
11. Sitorus Me. Knowledge of Postpartum Mothers regarding Mararang tradition and its impact on the health of mothers and baby in Toba samosir regency. Gadjah Mada University; 2017.
12. Kulkarni A, Nasreen J, Seema N. Monitoring of antimicrobial effect of GC-MS standardized melaleuca alternifolia oil (tea tree oil) on multidrug resistant uropathogens. *IOSR J Pharm Biol Sci*. 2012;2(2):6-14.
13. Kumala S, Indriani D. Anti-bacterial effect of ethanol extract of clove leaves (*Eugenia aromatic L.*). *J Farm Indonesia*. 2008;4(2):82-7.
14. Fuadi TM. Madeung and Sale Traditional Medicine for Postpartum Mothers in Aceh Society. In: *Proceedings of the National Seminar on Biotics*. 2019.
15. Batubara RP, Zuhud EAM, Hermawan R, Tumanggor Danr. The Use Value of Plant Species in Oukup (Steam Bath) procession in Karo Batak Society. *Conservation Media*. 2017;22(1):79-86.
16. Usemahu KM, Rachman WA, Natsir S. Traditional Medicine Behavior on Maternal Postpartum in the Village of Kailolo Central of Maluku.
17. Hakim RI, Wilson W, Darmawati S. Antibacterial activity test of ethanol extract of eucalyptus leaves (*melaleuca leucadendron L.*) on the growth of Methicillin resistant *Staphylococcus aureus* (MRSA). In: *Proceedings of the Unimus Student National Seminar*. 2019.
18. Shirly K, Dian I. Antibacterial Effects of Ethanol Extract of Clove Leaves (*Eugenia aromaticL.*). *J Farm Indonesia*. 2008;4(2):82-7.
19. Putri MT, Aditama DS, Diyanty D. Effectiveness of lemongrass aromatherapy (*cymbopogon citratus*) with finger-held relaxation techniques for reducing pain after sectio caesarea. *Wellness Heal Mag*. 2019;1:267-76.
20. Aryanta IWR. Benefits of ginger for health. *Widya Health*. 2019;1(2):39-43.
21. Sarimole E, Martosupono M, Semangun H, Mangimbulude JC. Benefits of *Jatropha curcas* (*Jatropha curcas*) as a traditional medicine. In: *Proceedings of the Raja Ampat National Seminar*. 2014;9-12.
22. Agaus LR, Agaus RV. Health Benefits of Nutmeg (*Myristica fragrans*). *J Medulla*. 2019;6:662-6.
23. Faradiba A, Gunadi A, Praharani D. Antibacterial Activity of Tamarind Leaves Infusion (*Tamarindus indica Linn*) against *Streptococcus mutans* (Antibacterial Activity of Tamarind Leaves Infuse (*Tamarindus indica Linn*) against *Streptococcus mutans*. *Health Library*. 2016;4(1):55-60.
24. Maryunani A. Initiation of early breastfeeding, exclusive breastfeeding and management of lactation. *Jakarta Trans media info*. 2012.
25. Ulfa M. Effect of education media on improvement visual acetate acid inspection at Sudiang community health center. *Enferm Clin*. 2020.
26. Wahyuni. Determinants of adolescents high-risk sexual behavior in SMK 8 and Mega Rezky Health Vocational School Makassar. *Enferm Clin*. 2020.
27. PD countries. Reconstruction of conservation area management policies based on local wisdom as a contribution towards the management of Indonesia's natural resources. *J Constitution*. 2011;4(2).
28. Niman EM. Local wisdom and efforts to preserve the natural environment. *J Educator and Kebud Missio*. 2019;11(1):91-106.

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