

KNOWLEDGE AND PHYSIOLOGICALLY EFFECTS OF TAPEL TOWARDS POSTPARTUM MOTHERS

Alfi Laili^a, Ria Julita^a, Ruri Aditya Sari^b, Iswandi Idris^b

^a*Akademi Kebidanan Langkat, Indonesia*

^b*Politeknik LP3I Medan, Indonesia*

Abstract

Maternity period is a crucial transition period for mothers, which had affected them emotionally and socially. Within postpartum period, there will be some physiology changes such as involution (shrinking or return of an organ to a former size). The use of 'Belly Tapel' which is believed can rescued mothers' physiology to returned back as before. This research aims to study the correlation of knowledge and the use of 'Belly Tapel' towards maternity mothers' physiologically. This study was conducted in Indonesia (location: Langkat, Deli Serdang and Medan), where the sample of maternity mothers with 25-39 years old who have ever used 'tapel' (74 people) was collected. Correlation test and T-test were conducted in this study. To analyze the effect of tapel used towards mothers' physiology was also conducted from day 0 until day-40 by measuring mothers' weights and waist size changes. Based on the result, it was found that there were correlation ($p < 0.05$) between the knowledge and the use of 'Belly Tapel' and the influence of knowledge towards the use of it ($p < 0.05$). The use of 'Belly Tapel' assisting mothers' to lose weights and waist size up to $3.99 \text{ kg} \pm 2.25$ and $4.03 \text{ cm} \pm 1.35$. The use of tapel and stagen accelerating weights loss and reducing waist size compared to using tapel only. Therefore 'Belly tapel' have shown to help postpartum mothers' to lose weights and waist size.

Keywords: Belly tapel, postpartum, maternity, 'bengkung', stagen

1.0 INTRODUCTION

Believes and trusts towards maternity care for postpartum mothers are not only around the deep village but also around the city . Societies believed that the custom of maternity care treatment can give much benefits for them (Rahayu et.al., 2017). Traditional treatment within postpartum period is functions to rescue the reproduction organ before pregnancy (Usemahu et.al., 2014). After maternity period, it is very crucial for mothers, babies and family and their emotion, physiology and social was affected deeply. The condition after maternity put mothers at risks, by having too much pain and sometimes may even lead them to death. However, todays, in developed country, period attention towards mothers and babies refer to pregnancy and maternity only.

Based on Swarnalatha and Bhuvanewari (2013) indicated that the use of belt suit, footwear, no bathing and dietary food are carried out by postpartum mothers in Tirupati. In addition, postpartum mothers also have taboos or myths such as prohibiting them from eating fish, eggs and meat to allow the stitches wound heal quickly, even though it is againsts the proper medical advices (Yuniantini et al., 2020). Like the culture, the Acehness believe that postpartum care is often carried out such as abstinence from leaving the house for 44 days and lying on a warm bed. Whole body warmth was given for 20 - 44 days (Rahayu et.al., 2017). Mothers who were just given birth are encouraged to sweat, which can help the process of drying out the birth canal wounds (Komariah, 2018).

‘Belly tapel’ is a traditional ingredient for maternity treatment made from whiting and lime juice which is rubbed on the belly of postpartum mothers. Belly tapel is believed to help healing; the use of belly tapel has become a culture among the community. However, belly tapel should only be used for women who have given birth normally. This is because, the use of belly tapel an be dangerous if the belly tapel sticks to the scar that has not dried. The public does not yet know about the use of tapel in terms of Minister of Health Regulation No. 16 of 2012. However, people generally believe that the use of traditional treatments such as tapel belly can provide benefits for mothers.

In addition to the use of tapel, the use of curves after giving birth also has become habit within the community. One of the factors that cause postpartum mothers to choose to use ‘*bengkung*’ or stagen, is due to culture and the assumption that ‘*bengkung*’/stagen can make slender, comfortable and can increase the confidence of the postpartum mother. ‘*bengkung*’ is a long cloth measuring 10 meters which is used to protect the mother's belly after giving birth. ‘*bengkung*’ can help to maintain the position of the mother's body while breastfeeding, it can also relieves back pain. Based on the research results of Laili

(2019) which states that education level, work status and age affect maternal knowledge about the use of abdominal tapel. However, research on the relationship and the influence between knowledge factor and use of abdominal tapel has not been reported. Also, research on the effect use of belly tapel on the physiology of postpartum mothers was also important. For this reason, this study aims to see the relationship between maternal knowledge and the use of abdominal tapel. This study also discusses the effects of using abdominal tapel on the physiology of postpartum mothers.

2.0 LITERATURE REVIEW

a. Tapel

The life cycle of women generally has the stages of adolescence, before marriage, pregnancy, childbirth, breastfeeding and menopause. there are special treatments in each stage of the life cycle, depending on the culture and society they have inherited the norm in in these treatments.

After giving birth, there are many traditional remedies that can be used. One of the most common is belly tapel. Belly tapel is used to flattened the stomach reducing its size to its original state. The belly tapel concoction contains whiting which is given eucalyptus oil and lime, the longer the belly tapel mixture gets hotter so that the remaining dirty blood is excreted more smoothly (Kurniati, 2013).

Tapel is a traditional medicine in the form of a solid, paste or like pulp which is used by smearing all over the surface of the stomach. Tapels can be used by mothers who has given birth normally. The belly tapel can be used at any time for the mother whose giving birth normally but if the mother is giving birth by surgery, tapel should not be used until the surgical wound is declared good by the doctor, or approximately until 2 weeks after delivery. However, the use of this tapel should not hit the area with the surgical wound. The tapel warms the stomach which makes the intestines work or contract faster so that the wind that is in it can easily escape, belching is easier and the stomach feels flat (Laili, 2019). Water whiting and lime have anti-cellulite properties. If the skin is sensitive, or too much whiting, burns can occur. Belly tapel is made from various herbal spices and is intended to warm the area around the stomach, in addition to helping to shed the blackish skin layer of the stomach due to expansions during pregnancy, although it invites itching and the desire to scratch, the advice is to try not to scratch it. Tapel helps the burning process of fat under the skin. If the fat is reduced, the skin

will stretch more quickly (Laili, 2019).

b. Pospartum

A period marked by the presence of a heavy burden on the mother, especially disorder of affective ability was called pospartum (Sylvén et.al., 2017). The pospartum period is the period after delivery when maternal physiological and anatomical changes return to the nonpregnant state whis is called puerperium followed the expulsion of the placenta until complete physiological recovery of another organ systems (Gaurav & Tadi, 2020). Baby blues is a psychological disorders after child birth. After the delivery process, the mother will experience physical dan psychological changes (Ryanawati et.al., 2018). The postpartum period divides into three arbitrary phases such as acute phase (the first 24 hours after delvery), early up to 7 days and the late up to 6 weeks to 6 months (Romano et.al., 2010).

c. Reproductive

Involution is a part of postpartum physiology given to the proces of reproductive organs returning to their pregnant state (Gaurav & Tadi, 2020). The uterus and placental site contracts rapidly to prevent further blood loss. The women may complain, initially the contraction of the uterus due to a substantial reduction in myometrial cell size.

3.0 METHODOLOGY

This study consists of 2 stages, the first stage, analyzing the correlation between knowledge and the belly tapel used and analyzing the influence of mothers' knowledge towards the use of belly tapel. The sample of this study in the first stage was maternity mothers who have ever used belly tapel in Langkat, Deli Serdang and Medan, Indonesia (74 people) with 25-39 ages, the data was collected by administering questionnaire (Laili, 2019; Arikunto, 2006).

The second stage was analyzing the influence of using tapel towards postpartum mothers' physiology, the sample was 2 groups; maternity mothers 0-40 days who used belly tapel (12 people) and maternity mothers 0 - 40 days used belly tapel and curve (12 people) with 25 – 39 years old. It was analyzed by correlation test, T test, influence test of using tapel towards mothers' weights and waist size. Correlation analysis and T test was conducted by operating SPSS

version 20. The use of tapel test was conducted by calculating the average of weights and waist size changes.

a. Correlation analysis

Correlation analysis was conducted by method correlation product moment.

b. T Analysis

T test was conducted by method proposed by Sugiono (Arikunto, 2006). If $p < 0.05$, H_0 was rejected and H_a was accepted, it means that independent variable partially influence dependent variable significantly. If $p > 0.05$, H_0 was accepted and H_a was rejected, it means that independent variable partially does not influence dependent variable significantly.

c. Hypothesis

H_0 : there is no influence of knowledge and the use of tapel for postpartum mothers

H_a : there is influence of knowledge and the use of tapel for postpartum mothers.

d. The effect of using tapel towards mothers' physiology test

To find the effect of tapel used towards mothers' physiology, it was conducted by measure mothers' weights (kg) and waist size who used tapel and tapel used plus 'bengkung', the measurement was carried on from 0 – 40th day.

4.0 RESULTS AND DISCUSSION

4.1 Respondent Characteristics

Table 1 showed that 70% respondents were working mothers with 25 – 39 ages. A number of 51.4% respondents were post-graduated women.

4.2 Correlation Analysis and T analysis

Based on the result, it was founded that the correlation between knowledge and the use of belly tapel has correlation score $0.013 < 0.05$ (Table 2). However, in T test, table 3 it was seen that $p (0.03) < 0.05$, so H_0 was rejected and H_a was

accepted, it means that there was correlation between knowledge and the use of tapel for maternity mothers within postpartum period.

Table 1. Respondent characteristics

Characteristics	Respondents	%
Senior High School	6	8,11
Undergraduate	30	40,5
Master degree	38	51,4
25–29 years old	4	5,4
30-34 years old	46	62,2
35-39 years old	24	32,4
Employee	52	70,3
Unemployee	22	29,7

Table 2. Correlation Analysis

		Application	Knowledge
Application	Pearson Correlation	1	,013
	Sig. (2-tailed)		,910
	N	74	74
Knowledge	Pearson Correlation	,013	1
	Sig. (2-tailed)	,910	
	N	74	74

*p< 0.05

Correlation analysis shows that there was correlation between knowledge and the use of tapel because the knowledge of using it. This result was similar to Laili (2019) , about 53% respondents does have the knowledge about the use of tapel. It is believed and trust towards maternity care after postpartum can be seen familiarly (Rahayu et.al., 2017). The aspect of knowledge is knowing, understanding, the ability to use material, analysis (understanding information), synthesis and evaluation (Notoadmojo, 2010). Meanwhile, the factors that influence knowledge are age, education level and employment status (Notoadmojo, 2010).

In addition, socio-cultural developments in society also have an impact on changing thought processes. Culture and health are closely related. A culture can

build habits and responses to health. So that social and culture can also affect mothers' knowledge about the use of tapel. Based on T test, $p < 0.05$, it means that there is an effect of knowledge with tapel use. Laili (2019) indicates that dominant respondents know the use of tapels, but respondents who have less knowledge about tapel use still choose to use abdominal tapel as part of the postpartum care. This happens because of cultural factors that are still strong in the society. So, people who have known about belly tapel and use from culture or experience will choose to use belly tapel as a postpartum treatment.

Table 3. T Analysis

		Coefficients ^a		t	Sig
		Unstandardized Coefficients	Standardized Coefficients		
Model		B	Std Error		
1	(constant)	1,854	,592	3,131	,003
	Aplication	,041	,361	,013	,910

a. Dependent Variable : Knowledge

4.3 The effect of tapel use towards mothers' physiology

The result of the research shows that there was physiology effect towards the use of belly tapel for postpartum mothers. Table 4 shows those mothers' weights and waist sizes during using tapel. Mothers' weights before was around 60.5 kg, then after using tapel it lose to 56.51kg. It is intertwined with waist sizes before (78.5 cm) then after it (74.47 cm). The use of tapel plus 'bengkung' also loses weights and waist sizes, before (62.28 kg to be 57.91 kg and 79.28 to be 75.48 cm, respectively). Postpartum period is a recue of reproduction and body system like before pregnancy period (Saleha, 2009). To avoid complications such as bleeding, weight loss and infection, *special* care is needed during the postpartum period. Based on the results, it was found that there was a decrease in body weight of $3.99 \text{ kg} \pm 2.25$ after 40 days of using abdominal tapel. Changes also occurred in the waist size of belly tapel users after 40 days, which was reduced by $4.03 \text{ cm} \pm 1.35$. However, if the use of tapel is added to the use of 'bengkung', the change in body loses weight $4.37 \text{ kg} \pm 2.30$. Likewise, the waist size leased to $3.8 \text{ cm} \pm 2.05$. This shows that the belly tapel plused the use of 'bengkung' can lose body fat and waist size. Tapel + orange juice (5.07 kg) can reduce body weight compared to using tapel + 'bengkung' ($4.37 \text{ kg} \pm 2.30$) (Bainuan & Juaria, 2018). During pregnancy, women will gain weight exceeding 12-18 kg (Bainuan & Juaria, 2018; Cunningham et al., 2014), then after giving birth weight loss is only about 3-5 kg. Further weight loss after conception and normal blood output is 2 -

3 kg through diuresis (Zanotti et.al., 2015), which states that treatments such as tapel, pilis and parem are believed to smoothen the body, tighten the skin and can shrink the belly (Rahayu et.al., 2017;Setiadi et.al., 2017).

Table 4. The Analysis Of Tapel And ‘bengkung’ Use

	Weights 0 days (kg)	Weights after 40 days (kg)	waist size (cm)	Waist size after 40 days(cm)	Weights Beginning postpartum (kg)	Weights after 40 days postpartum (kg)
Control	62.00	60.50	78.00	77.00	65.50	62.00
Belly tapel	60.50	56.51	78.50	74.47	59.47	55.77
Belly tapel + ‘bengkung’	62.28	57.91	79.28	75.48	60.93	56.83
Tapel + lime*	63.07	58.00	-	-	63.34	60.87

*source : Bainuan & Juaria (2018).

The belly tapel contains ingredients that can warm the belly, make the intestines work or contract more quickly so that the wind in the body can easily escape and the belly feels more flat. Tapel ingredients consist of whiting and lime water which have anti-cellulite properties. Betel lime contains calcium; if you add a little water it can produce heat (Setiadi et.al., 2017). However, if it is placed on sensitive skin or too much whiting will cause burns. This is why the belly tapel should only be used if the mother is in normal labor and for at least 2 weeks (until the wound is dry) after surgery. The weight loss that occurs after using tapel is caused by the ingredient of the tapel which helps the fat burning process under the skin, besides that it can also help tighten the skin after the fat is gone. The calcium inside the tapel material plays a role in regulating the metabolism of triacylglycerol and adipocyte fat. Decrease in intracellular calcium can inhibit fatty acid synthesis and promote lipolysis in adipose tissue and is broken down into fatty acids and glycerol, which causes weight loss (Setiadi et.al., 2017).

The use of tapel that is covered with stagen can warmth the skin so that the fat burn more effective. It is due to the hot air produced by the material of tapel when it is covered tightly with stagen can resists longer and warmer in the skin. However, stated that there is no differences digestive involution toward mothers who uses stagen or belt suit (Rahayu et.al., 2017). There were many factors affect it, such as early mobilization, lactation process, nutrition, parity and the use of stomach supporting (Saleha, 2009). Uterus involution physiologically ruin mothers

due to the effect of ocsitosin hormonal (Rahayu et.al., 2017). Fast or slow of an involution depends on the intensity of a woman pregnant, the more often pregnancy, the more stretch of uterus. Mothers' health status was not influenced by the use of stagen because stagen can work properly in disguising mothers' stretch belly after maternity (Rahayu et.al., 2017). Furthermore, the stagen can rescue mothers' belly like before pregnant effectively. Stagen should be worn properly and it is proper for postpartum mothers only after normal labor without wound pain after perineum. Stagen was worn within 4-6 hours per hours every day after bathing without tightening too much in order mothers can breathe smoothly.

5.0 CONCLUSION

It can be concluded that the correlation between knowledge and the belly tapel use ($p < 0.05$) was significant and there was great influence between knowledge and the use of tapel. The results clearly showed that the majority of societies actually know about the use of tapel and choose to use belly tapel as part of maternity care treatment during postpartum period. The use of belly tapel was proven to help mothers' to lose weights until $3.99 \text{ kg} \pm 2.25$ and decrease waist size $4.03 \text{ cm} \pm 1.35$. The use of tapel plus 'bengkung' or stagen can lose weights and waist size faster.

ACKNOWLEDGEMENT

This research was funded by Ministry of Research and Technology National Research and Innovation Agency Republic of Indonesia who have given research grant to novice lecturer research year 2019 with contract Number: 376/LL1/PG/2020 date: 27 May 2020.

BIODATA

Alfi Laili, S.KM, M. Kes is a senior lecturer in Midwifery study programme of Akademi Kebidanan Langkat, Indonesia. Email : *alfi.lailikusuma@gmail.com*

Ria Julita, S.ST, M.Kes is a senior lecturer in Midwifery study programme of Akademi Kebidanan Langkat, Indonesia. Email : *riajulita473@gmail.com*

Ruri Aditya Sari, M.Sc is a senior lecturer in Business Administration, Politeknik LP3I Medan, Indonesia. Email : *ruri@lp3i.id*

Iswandi Idris, ST, MT is a senior lecturer in Computer Technology, Politeknik LP3I Medan, Indonesia. Email : *iswandi.idris@gmail.com*

REFERENCES

- Arikunto, S. (2006). *Prosedur suatu pendekatan praktik*. Jakarta: Rineka Cipta.
- Bainuan, L. D., & Juaria, H. (2018). Pengaruh Pemberian Tapel Perut Dan Jus Citrus Aurantifolia Terhadap Penurunan Berat Badan Pada Ibu Nifas. *Jurnal Kebidanan*, 7(1).
- Cunningham, F., Leveno, K., Bloom, S., Spong, C. Y., Dashe, J. S., Hoffman, B. L., Sheffield, J. (n.d.). (2014). *Williams Obstetrics*. *Williams Obstetrics [Internet]*. New York: McGraw Hill Medical. 24th.[699].
- Gaurav, C., & Tadi, P. (2020). *Physiology, Postpartum Changes*. [Online]. Available: <https://www.ncbi.nlm.nih.gov/books/NBK555904/>. {Accessed: Dec, 23, 2020}.
- Komariah, E. (2018). Pengaruh Pendidikan Kesehatan Mengenai Perawatan Ibu Postpartum Dengan Seksio Sesaria Terhadap Kemampuan Merawat Diri Di RSUD Dr. Soekardjo Kota Tasikmalaya. *Jurnal Kesehatan Bakti Tunas Husada: Jurnal Ilmu-Ilmu Keperawatan, Analis Kesehatan Dan Farmasi*, 17(2), 437–447.
- Kurniati, Y. (2013). KTI Faktor-faktor yang berhubungan dengan penggunaan obat tradisional bagi ibu nifas di desa Bina Krueng Kecamatan Tantan-tangan Kabupaten Aceh Barat Daya. [Online]. Available: http://simtakp.uui.ac.id/dockti/YENI_KURNIATI-kti.pdf. {Accessed: June, 19, 2018}.
- Laili, A. (2019). Hubungan Pengetahuan Ibu Terhadap Penggunaan Tapel Perut Pada Masa Nifas Di Desa Banyumas Stabat Tahun 2019. *Excellent Midwifery Journal*, 2(1), 80–84.

- Notoadmojo, S. (2010). *Metodologi Penelitian Kesehatan*, PT. Rineka Cipta: Jakarta.
- Rahayu, I. S., Mudatsir, M., & Hasballah, K. (2017). Faktor budaya dalam perawatan ibu nifas. *Jurnal Ilmu Keperawatan*, 5(1), 36–49.
- Romano, M., Cacciatore, A., Giordano, R., & La Rosa, B. (2010). Postpartum Period: Three Distinct but Continuous Phases. *Journal of Prenatal Medicine*, 4(2), 22-25.
- Rynawati, P., Uki, R. B., & Murti, B. (2018). Prevalence and Determinants of Postpartum Depression in Sukoharjo District, Central Java. *Journal of Maternal and Child Health*, 3(1), 11-34.
- Saleha, S. (2009). *Asuhan kebidanan pada masa nifas*. Salemba Medika.
- Setiadi, N. A., Nugroho, D., & Aruben, R. (2017). Studi Kasus Pengetahuan Dan Sikap Ibu Pasca Persalinan Dengan Perawatan Tradisional Di Desa Jarakah Kab. Pematang Tahun 2017. *Jurnal Kesehatan Masyarakat (E-Journal)*, 5(4), 823–829.
- Swarnalatha, N., & Bhuvaneshwari, P. (2013). An epidemiological study of low birth weight in a tertiary care hospital, Tirupati, Andhra Pradesh. *International Journal of Current Research and Review*, 5(16), 54.
- Sylvén, S. M., Thomopoulos, T. P., Kollia, N. J. M., & Skalkidou, A. (2017). Correlates of Postpartum Depression in First Time Mothers Without Previous Psychiatric Contact. *European Psychiatry*, 40, 4-12.
- Usemahu, M. K., Rachman, A. W., & Natsir, S. (2014). Traditional Medicine Behaviour on Maternal Postpartum in the Village of Kailolo Central of Maluku, in *Promosi Kesehatan dan Ilmu Perilaku*, FKM Universitas Hasanuddin.
- Yuniantini, U., Bahar, B., Farid, M., Sinrang, A. W., Mallongi, A., & Demmalino, E. B. (2020). Qualitative Study on Maternal Postpartum Health Care on Malayan People in Pontianak. *International Journal of Multicultural and Multireligious Understanding*, 7(1), 391–397.
- Zanotti, J., Capp, E., & Wender, M. C. O. (2015). Factors associated with postpartum weight retention in a Brazilian cohort. *Revista Brasileira de Ginecologia E Obstetrícia*, 37(4), 164–171.

