

EFFECTIVENESS OF SLOW STROKE BACK MASSAGE THERAPY ON THE SLEEP QUALITY OF POSTPARTU MOTHER

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ABSTRACT

The risk factors for non-typhoidal Salmonella infections in pediatric populations are not fully understood, but this remains a critical area of study for improving child health. Objective: The aim of this review is to systematically analyze the available literature about the risk factors of non typhoidal salmonella among pediatric populations. Method: The risk factors for non-typhoidal Salmonella infections in children were examined in all papers published between 2019 and 2024 using a systematic review of the literature using PRISMA criteria. Google Scholar, PubMed, and ProQuest are the three electronic databases that the writers searched. The query "children" AND "risk factors" AND "non-typhoidal salmonella" OR "salmonellosis" was used. The outcomes were then examined appropriately. Results: We initially identified 1983 articles and subsequently selected 7 articles that met the inclusion criteria. We identified several risk factors associated with non-typhoidal Salmonella infections and categorized them into four domains: environmental factors (such as open field waste disposal), behavioral habits (like inadequate handwashing), health conditions, and socio-demographic characteristics (such as lower parental education). Conclusions: Our review identified risk factors for non-typhoidal Salmonella infections in four domains: environmental factors, behavioral habits, health conditions, and socio-demographic characteristics.

Keywords: postpartum mothers; sleep quality; slow stroke back massage

INTRODUCTION

Maternal health refers to women's conditions during pregnancy, childbirth, and postpartum (Hutaminingsih, 2023; Lestari, 2020). Some women sometimes experience fear or worry about the pain that may arise during childbirth, which can lead to high levels of stress, which in turn contributes to relatively low maternal mortality rates. Common causes of maternal morbidity and mortality include excessive blood loss, infection, high blood pressure, unsafe abortion, complications during birth, as well as indirect causal factors such as anemia, malaria, and other comorbid diseases (Julianti et al., 2023; Lilis et al., 2022).

According to the World Health Organization (WHO) report in 2017, the incidence rate of postpartum depression reached 30.75%. The incidence of baby blues in Asia is significant, ranging from 26-85%, with the incidence rate in Indonesia reaching 50-70% in postpartum mothers. Baby blues occur in mothers after giving birth as a temporary condition, usually appearing in the first week after giving birth. Meanwhile, postpartum depression is experienced by around 34% of postpartum mothers, and 1% experience postpartum psychosis. Baby blues describes the mother's unstable emotional condition, characterized by symptoms such as anger, sensitivity, sadness, easy crying, decreased appetite, and impaired physical activity during the postpartum period. If not treated properly, this condition can develop into postpartum depression, even postpartum psychosis (Rahma et al., 2023; Tindaon & Anggeria, 2018a; Verda & Nuraidha, 2022a; Yuliarna et al., 2023).

The global prevalence of postpartum depression ranges from 10-15%. Countries such as Malta, Malaysia, Austria, Denmark, and Singapore have limited reports of this incident. Currently, there are several reports of postnatal depression symptoms in countries such as Brazil, South Africa, Taiwan, Korea, Italy, and Costa Rica. A study in India with 359 primiparous women found the incidence of postpartum depression to be 11% (Mustofa et al., 2021). After delivery, there is a significant decrease in the levels of the hormones progesterone and estrogen (Jesica & Friadi, 2019; Rz et al., 2022). These hormonal changes are the main factor causing mood changes in mothers after giving birth. Meanwhile, lack of adequate rest after giving birth is also a problem faced by mothers. Sustained sleep deprivation can cause physical discomfort and fatigue, which may ultimately contribute to postpartum depression (Febriyanti et al., 2023; Kartiko & Siswanto, 2015; Yendena et al., 2023).

Sleep disorders have become a health issue for more than half of the adult population globally, including about sleep quality. According to the National Sleep Foundation in the United States, more than half of the United States population experiences excessive daytime sleepiness, which is often triggered by poor sleep quality. Involvement in various time-consuming activities usually causes people to sacrifice hours of sleep, triggering changes in sleep patterns that lead to low-quality sleep. Insomnia, as an example of poor sleep quality, can cause symptoms ranging from anxiety to depression (Handiyani, 2018; Mayangsari & Amalia, 2018).

Mothers entering the postpartum period face various health-related risks. The postpartum period refers to the period after childbirth necessary to restore the reproductive organs to their pre-pregnancy condition. Approximately 60% of maternal deaths during childbirth and 50% of deaths during the postpartum period occur within the first 24 hours after birth. During the postpartum period, mothers are more vulnerable to fatigue because they have to adapt to new tasks and roles as mothers (Daman & Salat, 2015; Kusumasari, 2018; Rusli et al., 2012). Efforts to treat insomnia, especially by midwives, involve providing health education during postpartum visits regarding the importance of rest and sleep for postpartum mothers. Apart from that, postpartum mothers can also seek support from family members, such as mothers or other relatives, to help care for the baby, reduce caffeine consumption, and adjust the baby's sleep pattern for around 12 hours during the day or at night. Mothers are expected to sleep when the baby sleeps so that nighttime sleep problems can be overcome (Dewi Ciselia & Vivi Oktari, 2021; Rusli et al., 2012).

According to research by Anninah et al. (2020) regarding the impact of slow stroke back massage on maternal sleep quality after a cesarean section at Bhayangkara Bengkulu Hospital, it was found that before slow stroke back massage treatment, the average sleep quality score in the intervention group was 10.27 while in the control group, it was 8.00. After applying slow stroke back massage in the intervention group, the average sleep quality score increased to 8.80, while in the control group, it was 7.60 (p-value = 0.03). Slow stroke back massage therapy is needed to improve the quality of the mother's sleep after a Caesarean section at Bhayangkara Hospital, Bengkulu. This study aimed to determine the effect of slow-stroke back massage therapy on the sleep quality of postpartum mothers.

METHOD

This research uses a quasi-experimental design with the One-Group Pretest-Posttest design. It was conducted at the Sirombu Health Center inpatient setting in December 2021. The population in this

study was all 50 postpartum mothers at the Sirombu Health Center. The sampling process was carried out using an accidental sampling technique, and a sample of 33 mothers was obtained.

RESULTS AND DISCUSSION

Table 1.
Characteristics of respondents

Variable	f	%
Age		
< 20 Years	3	9,2
20-35 Years	21	63,6
> 35 Years	9	27,3
Education		
Junior High School	3	9,2
Senior High School	26	78,8
Bachelor	4	12,1
Work		
Housewife	21	63,6
Self-employed	10	30,3
Civil Servants	2	6,1

Table 2.
Average value of the difference in sleep quality of postpartum women before and after slow stroke back massage therapy

Variable	Mean	SD	<i>P value</i>
Sleep Quality of Postpartum Mothers	Before	1,70	0,000
	After	1,00	

Table 1 shows that the majority of mothers aged 20-35 years, as much as 63.6%, have a high school education, namely as many as 78.8%, and work as housewives as much as 63.6%. Table 2 shows that the average value of sleep quality for postpartum mothers before being given the intervention was 1.70, with a standard deviation of 0.467. After the intervention was given, it was 1.00 with a standard deviation of 0.000 and a P value of 0.000. It can be concluded that giving slow stroke back massages influences the sleep quality of postpartum mothers ($p < 0.05$).

The research showed an effect of giving slow stroke back massages on the sleep quality of postpartum mothers with a p-value < 0.05 . Postpartum maternal sleep disorders can be influenced by sleep disorders experienced previously during pregnancy. Data shows that the average sleep quality score remains high, reaching 10.2 (indicating poor sleep) (Armini et al., 2017; Nawati et al., 2022). According to research by Motzfeldt et al. (2013), changes in sleep patterns during pregnancy, significantly a decrease in Rapid Eye Movement (REM) sleep in the last trimester, are caused by a gradual increase in the hormones progesterone and estrogen. These hormones, associated with pregnancy and childbirth, can reduce the REM sleep phase.

The impact of disturbed sleep patterns and changes in sleep quality can result in decreased quality of life, disruption in daily activities, and weakened immune systems. In postpartum mothers who experience difficulty in resting and sleeping, this condition can affect the care of the baby and the mother's well-being. This can also be a trigger factor for postpartum sadness in postpartum

mothers. Lack of rest in breastfeeding mothers can cause fatigue and an inability to be active or perform physical tasks, which can then contribute to postpartum sadness symptoms (Juita & Shofiyah, 2022; Yunanda et al., 2022). Research findings by Hasna et al. (2018) support the existence of a correlation between sleep disturbances in postpartum mothers and the incidence of postpartum sadness.

Based on the assumptions of the research results, it was found that the average value of postpartum maternal sleep quality before the intervention was 1.70, with a standard deviation of 0.467. In contrast, after the intervention, this value decreased to 1.00 with a standard deviation 0.000 and a P value 0.000. Significant changes occurred after providing this therapy because, during the research, postpartum mothers stated that this intervention also involved the husband's participation. This shows that researchers carry out the treatment and consist of the husband, who helps implement the therapy being taught so that the results of this research can be optimal.

Sleep quality refers to conditions that provide freshness and energy when a person wakes up. It includes quantitative aspects such as sleep duration, time to fall asleep, and subjective aspects of sleep. Sleep quality reflects an individual's ability to maintain good sleep and achieve sufficient REM and NREM sleep stages (L. Sari & Septiawan, 2020). Various psychological, physiological, and environmental factors can influence the quality of a mother's sleep after giving birth. Postpartum mothers who are breastfeeding often experience irregular sleep patterns. Changes in sleep patterns can cause problems such as lack of sleep in breastfeeding mothers, which can then impact mood changes. This condition can increase the risk of baby blues because the mother adapts to physical and psychological changes and the demands of her new role. Lack of rest and sleep in postpartum mothers can contribute to negative impacts such as depression and difficulties in caring for the baby and themselves (Tindaon & Anggeria, 2018b; Verda & Nuraidha, 2022b).

Mothers need space to express their thoughts and emotions in challenging times. Support from medical personnel such as doctors, midwives, or nurses is critical, for example, by providing accurate information regarding changes that occur after childbirth and the basic needs that mothers must meet. This is consistent with the finding that family support can influence the occurrence of postpartum depression. Symptoms of mild depression or postpartum depression often appear in mothers a few days after giving birth (R. A. Sari, 2020; Tindaon & Anggeria, 2018c). Sudden and dramatic changes in hormonal status make mothers more vulnerable to factors that would typically be overcome under normal circumstances during childbirth. Apart from hormonal factors, physical fatigue caused by the challenges of pregnancy and birth, lack of sleep, new environmental situations, and anxiety related to a mother's role towards a baby, partner, or other children are also factors that influence mothers (Ningrum, 2017).

CONCLUSION

Slow Stroke Back Massage therapy is an effective method in improving the quality of sleep in mothers after giving birth. Through gentle and therapeutic touch on the back, this therapy helps reduce muscle tension, increase relaxation, and relieve stress that mothers often experience after giving birth. The positive impact of this therapy was seen in an increase in the average sleep quality score, indicating that interventions such as Slow Stroke Back Massage may be a helpful approach in improving mothers' postpartum sleep and overall supporting their recovery and well-being in the postpartum stage. Future researchers are expected to conduct combination research that can

improve the sleep quality of postpartum mothers.

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