UNIVERSITI TEKNOLOGI MARA

THE ROLE OF INTRAPARTUM SHIATSU MASSAGE DURING LABOUR IN SAMARINDA, INDONESIA: A MIXED-METHODS STUDY

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ABSTRACT

Labour pain persists as a challenge, and exploring alternative pain relief methods is crucial. Shiatsu massage shows potential based on available evidence. However, conclusive support for its efficacy and safety in alleviating pain and anxiety during labour is lacking. This study aimed to determine the efficacy and safety of intrapartum Shiatsu massage in reducing pain and anxiety during labour (quantitative phase), and to explore women's experiences and perceptions of Shiatsu massage during childbirth (qualitative phase). A concurrent mixed-methods design was employed in four randomly selected low-risk maternity clinics in Samarinda, East Kalimantan, Indonesia, from February to May 2022. In the quantitative phase, 80 participants were selected through systematic sampling. A quasi-experimental design was used, with two clinics assigned to the intervention group (routine care plus Shiatsu massage) and two to the control group (routine care only). Certified practitioners administered Shiatsu massage using a standardised protocol. Pain was measured using the Numeric Rating Scale (NRS), anxiety using the Hamilton Anxiety Rating Scale (HAM-A), and safety outcomes through clinical observation. Data were analysed using SPSS version 26. In the qualitative phase, ten participants from the intervention group were recruited through purposive sampling. Semi-structured interviews were conducted prior to discharge to explore their labour experiences and perceptions of Shiatsu massage. Thematic analysis was applied to the qualitative data. Quantitative findings indicated a significant reduction in pain ($p<0.001$) and anxiety ($p<0.001$) in the intervention group during the latent, active, and advanced active phases. Effect sizes were large for pain ($\eta^2=0.801$) and anxiety ($\eta^2 = 0.193$). There was no significant maternal or neonatal complications were associated with the intervention. Qualitative analysis revealed that participants perceived Shiatsu massage as calming and supportive, contributing to a more positive birth experience. Several expressed a willingness to use Shiatsu massage in future labours. Intrapartum Shiatsu massage appears to be an effective, safe, and well-accepted complementary therapy for reducing labour pain and anxiety. Its application could be especially valuable in settings with limited to pharmacological analgesics.

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CHAPTER 1
INTRODUCTION

1.1 Research Background

Childbirth is an essential stage in a woman's life (Simanullang, 2021). However, the delivery process is often accompanied by considerable pain and can cause anxiety (Vixner, 2015). Pain is defined as an unpleasant sensation experienced by an individual (Lennon, 2018). One of the most severe pain experienced by women is labour pain (Baljon et al., 2020). Pain, especially during childbirth, is a complex phenomenon that involves physiological and psychological mechanisms (Bonapace et al., 2018; Simona, 2008). Physiologically, the mechanism of labour begins with uterine contractions followed by dilatation of the cervix, which allows the foetus to enter the pelvis, causing distension and stretching of the pelvic floor and vagina (Lennon, 2018). An increase in the frequency and intensity (Eyeberu et al., 2022) of pain due to uterine contractions is experienced by women as labour progresses (Eyeberu et al., 2022). It can affect the mother's psychological state, the delivery process, and the foetus's well-being (Tournaire, 2007).

A study by Melzack (2003) found that 15% of women had mild pain, 35% had moderate pain, 30% had severe pain, and 20% had extreme pain during labour. The perception of the severity of pain women experience during labour is caused by several factors, such as emotional stress, depression, and anxiety (Beigi, 2010). Anxiety and mental pressure caused by the severity of pain cause various adverse effects after childbirth (Farnham, 2020). The more severe the labour pain, the worse the effect is on the mother and foetus (Chantrasiri, 2021).

This anxiety can cause inhibition of oxytocin release, which then reduces uterine contractions and leads to prolonged labour, increasing the possibility of medical interventions such as the use of synthetic oxytocin (to increase contractions), epidural analgesia, or even a caesarean section (Simkin, 2004; Walter, 2021). Prolonged labour increases the risks of complications that may lead to maternal morbidity and mortality (Utami, 2020).

Approximately 210 million women get pregnant each year worldwide. More than 130 million births occur worldwide each year, more than four million in the