

Efficacy and safety of Shiatsu massage as intrapartum analgesia : A quasi-experimental study

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INTRODUCTION

Labour pain remains a problem faced by women in labour. There is still a need to explore other alternatives for pain relief in labour. Shiatsu massage has potential based on the evidence that has been published. However, there remains a lack of evidence on the safety and efficacy of Shiatsu massage in reducing pain in labour. **Objectives: To determine the efficacy and safety of Shiatsu massage in reducing pain and anxiety during labour.**

METHODS

This was a quasi-experimental study. Four low-risk maternity clinics in Samarinda, East Kalimantan, Indonesia, were randomly selected as the study sites. Two were assigned to the intervention group (routine care in labour and Shiatsu massage) and the other two to the control group (routine care in labour). Primigravidas, who came in labour at term with singleton pregnancy in a cephalic presentation at study sites from February 2022 to May 2022, were offered to participate in this study using systematic random sampling. The agreed participants would be in either the intervention group or the control group based on which study site they presented to. The Shiatsu massage was performed by credentialed masseuses who followed a standard protocol: In the latent phase, massage involves four points at the sacral region identified as BL31, BL32, BL33 and BL34; in the active phase, the massage involves a point at the buttock that is parallel with the fourth lumbar segment (L4); and in the transition phase, massage involved points on the feet(KI-1), hand(HP-8) and forearms(HP-6). Basic demographic details and pain score assessment using the Numeric Rating Scale (NRS) were carried out upon recruitment in the early latent phase of labour. Subsequently, the pain score assessment was repeated in the latent, active, and transition phases. The labour progress information was also obtained. For the intervention group, the repeat assessment was performed after the Shiatsu massage was done in the latent and active/translation phases. Data was then analysed using Statistical Package for Social Sciences (SPSS) Version 26.0.

RESULTS

Forty participants were recruited for each group. No significant difference between participants in both groups. There was a **significant reduction of labour pain in the intervention group at the latent phase, T1 (p<0.001) and the active phase, T2 (p<0.001).** The impact of the intervention was also found to be **very large**, with partial $\eta^2=0.801$. There was **no significant increase in complications**

(prolonged labour, abnormal cardiotocography, operative vaginal deliveries, Caesarean section, post-partum haemorrhage, obstetric anal sphincter injuries) in the intervention (p>0.05).

Table 1: Labour pain scale at T0, T1, and T2 for Intervention and Comparison groups

Variables		Intervention group (N=40)	Comparison group (N=40)	p-value
		Mean $\pm$ SD	Mean $\pm$ SD	
Labour pain	T0	6.85 $\pm$ 1.00	6.85 $\pm$ 1.00	1.000
	T1	6.13 $\pm$ 0.88	8.05 $\pm$ 0.64	<0.001*
	T2	4.78 $\pm$ 0.83	8.85 $\pm$ 0.48	<0.001*

Note: T0 (Baseline), T1 (Latent Phase), T2 (Active and transition phase)

*statistically significant at $\alpha = 0.05$

Statistical test: Independent t-test

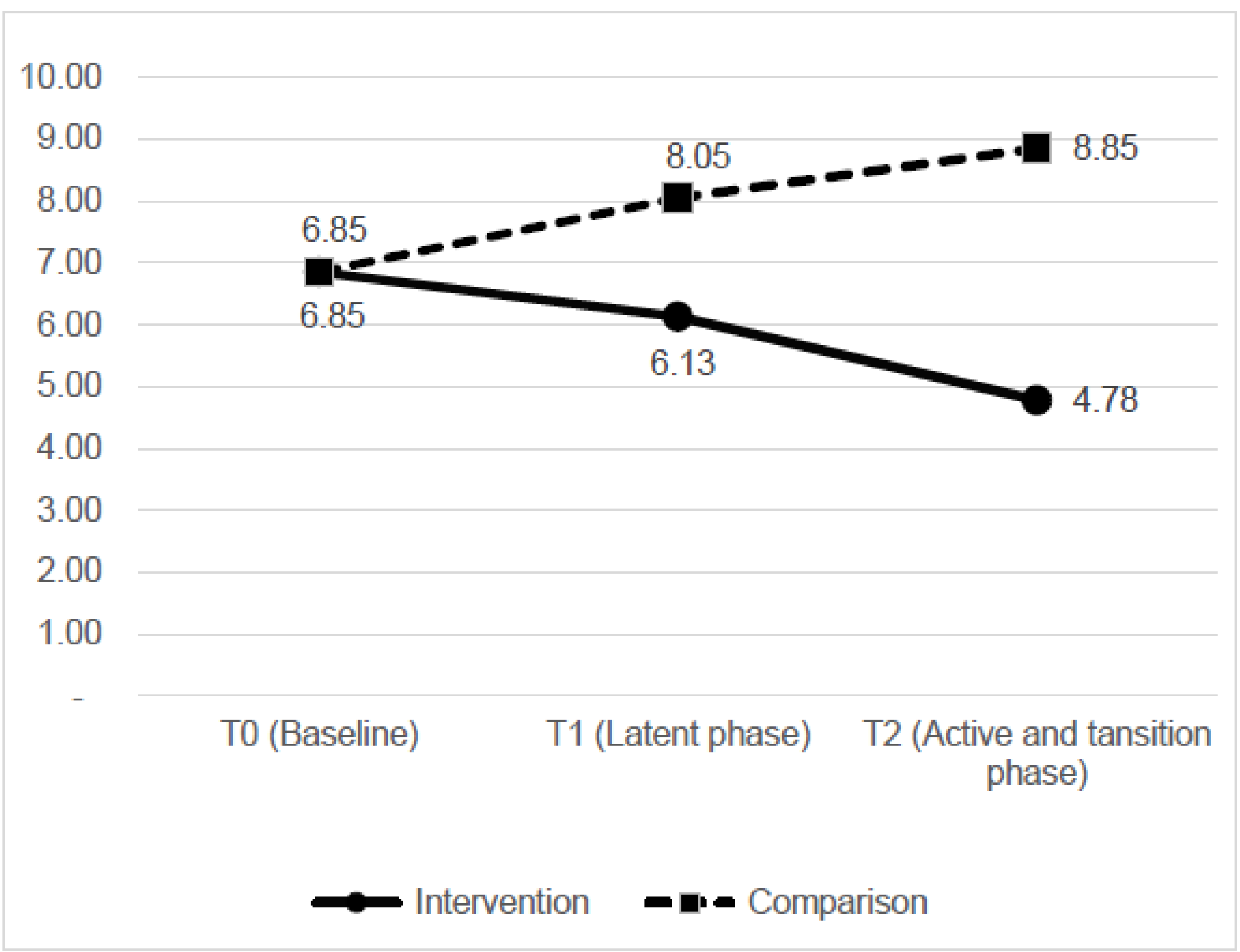
Table 2: Between-subject effects for labour pain in Intervention and Comparison groups

	F (df)	Mean diff (95%)	Partial η^2	power	p-value
Intervention	128.25	-2.00	0.801	1.000	<0.001*
Comparison	(1.748, 136.351)	(-2.23, 1.78)			

* Denotes statistically significant at $\alpha = 0.05$

Statistical test: RM-ANOVA

Figure 1: Labour Pain Score at T0 (Baseline), T1 (Latent phase), T2 (Active and transition phase) for Intervention and Comparison Groups



CONCLUSION

This study demonstrated that **Shiatsu massage is an effective and safe intrapartum analgesia method**. It could be a viable pain-relief option for labouring women, particularly where pharmacological analgesics are limited. However, trained and credentialed masseuses are necessary to ensure the effectiveness and safety of this technique.

REFERENCES

- Chang, M. Y., Wang, S. Y., & Chen, C. H. (2002). Effects of massage on pain and anxiety during labour: a randomised controlled trial in Taiwan. J Adv Nurs, 38(1), 68-73. doi:10.1046/j.1365-2648.2002.02147.x
- Gönenç, I. M., & Terzioğlu, F. (2020). Effects of Massage and Acupressure on Relieving Labor Pain, Reducing Labor Time, and Increasing Delivery Satisfaction. J Nurs Res, 28(1), e68. doi:10.1097/jnr.0000000000000344