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Comparative Efficacy of Controlled Physiotherapy Exercises Versus Traditional Midwife Massage in Lactating Working Women with Neck Pain: A Randomized Controlled Study

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ABSTRACT

Background: Neck pain is a common musculoskeletal complaint in postpartum women, particularly those resuming desk-based employment during lactation. This study aimed to compare the effectiveness of controlled physiotherapy exercises with traditional massage by midwives in alleviating neck pain in lactating females with desk job profiles.

Methods: A 12-week randomized controlled study was conducted on 30 lactating women aged 18–40 years experiencing neck pain. Participants were allocated equally into two groups (n=15 each): Group A received traditional massage therapy by midwives, while Group B underwent a structured physiotherapy exercise regimen. The Neck Disability Index (NDI) and Shoulder Pain and Disability Index (SPADI) were administered at baseline and at 15-day intervals. Statistical analysis was performed using independent t- tests.

Results: Both groups demonstrated improvement; however, Group B showed significantly greater reductions in NDI and SPADI scores at Day 61–75 and Day 76–90 ($p<0.001$). Group B's SPADI scores decreased from 105.53 to 22.87, while NDI scores declined from 44.93 to 4.07.

Conclusion: Controlled physiotherapy exercises proved significantly more effective than traditional midwife massage in reducing neck and shoulder pain and disability in lactating working women. This highlights the necessity of incorporating targeted physiotherapy into postpartum care for women with sedentary occupational demands.

Keywords: *Neck pain, Lactating women, Physiotherapy, Traditional massage, Desk job, SPADI, NDI.*

1. INTRODUCTION

Neck pain is a widespread musculoskeletal issue, particularly prevalent among office workers and lactating women. Postpartum females are especially vulnerable due to the physical demands of breastfeeding, ergonomic stress from poor posture, and physiological changes post-delivery. These factors are further compounded in working mothers who resume desk jobs soon after childbirth. Literature indicates that neck pain in this population affects quality of life, breastfeeding continuity, and work productivity.

Controlled physiotherapy exercises are known to improve musculoskeletal function by enhancing posture, muscle strength, and mobility. Conversely, traditional massage therapy, especially by experienced midwives, is a culturally accepted and widely used intervention for pain relief in the postpartum period. However, comparative evidence between these two approaches remains limited. This study aims to bridge that gap.

2. MATERIALS AND METHODS

Study Design: A 12-week randomized controlled comparative study.

Participants: Thirty lactating working women aged 18–40 years presenting with neck pain due to improper breastfeeding posture and prolonged desk work were recruited. Participants were randomly assigned to two equal groups:

Group A (Control): Traditional midwife massage only

Group B (Experimental): Controlled physiotherapy exercise protocol

Inclusion Criteria: Lactating females aged 18–40 years, with neck pain and stiffness due to breastfeeding or prolonged sitting, employed in a desk-based job, and willing to participate for 12 weeks.

Exclusion Criteria: Cervical fractures, open wounds or skin allergy, unstable mental health, uncooperative participants.

Intervention: Group A received daily traditional massage by a midwife (30–40 mins). Group B received a structured physiotherapy program including chin tucks and extensions, isometric shoulder exercises, scapular protraction, wall push-ups (4 times daily under supervision).

Outcome Measures: Neck Disability Index (NDI) and Shoulder Pain and Disability Index (SPADI) measured at baseline and every 15 days.

Statistical Analysis: Independent t-tests were used to analyze differences between groups. A p value <0.05 was considered statistically significant.

3. RESULTS

Demographics: Mean age was 31.2 ± 2.7 years. Most participants used the cradle hold breastfeeding position. Majority were primigravida and resumed work within 5 weeks postpartum.

NDI Scores: Group A reduced from 45.20 to 10.87; Group B from 44.93 to 4.07 ($p<0.001$ from Day 61).

SPADI Scores: Group A reduced from 107.53 to 47.93; Group B from 105.53 to 22.87 ($p<0.001$ from Day 31).

4. DISCUSSION

This study confirms the greater effectiveness of physiotherapy exercises over traditional massage in managing neck pain among lactating working women. The structured exercise protocol promoted postural correction, muscle strength, and flexibility, providing superior long-term relief.

These findings are consistent with previous literature emphasizing active, exercise-based rehabilitation over passive treatments. Studies by Ylinen, Falla, and others corroborate the importance of neck stabilization exercises and ergonomic education in preventing chronic musculoskeletal issues.

5. CONCLUSION

Controlled physiotherapy exercises significantly outperformed traditional massage in improving neck function and reducing pain among lactating working women. The findings advocate for integrating physiotherapy into postpartum care, especially for mothers returning to sedentary work environments.

6. LIMITATIONS

Small sample size (n=30) Limited to 12 weeks duration

Results may vary across cultural and socioeconomic backgrounds

7. RECOMMENDATIONS

Conduct larger, multicentric trials with longer follow-up Promote ergonomic training at workplaces and maternal centers

Integrate physiotherapists into maternal healthcare teams for postpartum recovery

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