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ORIGINAL ARTICLE

EFFECTS OF A COMFORT PROMOTION PROGRAM ON EARLY AMBULATION AND MATERNAL COMFORT AFTER CESAREAN SECTION: A QUASI-EXPERIMENTAL STUDY

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ABSTRACT

Background: Cesarean section is often followed by postoperative discomfort and delayed mobility, which may hinder maternal recovery. Objective: To evaluate the effects of a Comfort Promotion Program on time to first ambulation and maternal comfort after cesarean section. Methods: This quasi-experimental, two-group, post-test-only study was conducted at Borabu Hospital, Thailand, from December 2024 to March 2025. A total of 118 mothers undergoing planned cesarean section were purposively recruited and sequentially assigned to a control group (n = 59) or an intervention group (n = 59). The intervention group received routine care plus a program based on Kolcaba's Comfort Theory. Time to first ambulation and maternal comfort at 24 and 48 hours were compared using Mann–Whitney U and independent-samples t-tests. Results: The intervention group ambulated significantly earlier than the control group (median 14.00 vs. 19.10 hours; U = 310.5, p < .001, r = .71). Maternal comfort scores were significantly higher in the intervention group at 24 hours (122.95 vs. 90.76; t = 15.52, p < .001) and 48 hours (126.05 vs. 93.44; t = 14.98, p < .001). Conclusion: The Comfort Promotion Program was associated with earlier ambulation and higher maternal comfort and may support post-cesarean nursing care.

Keywords: *Cesarean section; comfort; early ambulation; postpartum nursing; Comfort Theory*

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BACKGROUND

Cesarean section (CS) rates have increased substantially worldwide, making postoperative recovery an increasingly important component of maternity care. Global data indicate that the CS rate increased from 7% in 1990 to 21% in 2024, and this upward trend is expected to continue. According to the World Health Organization (2021), the global cesarean section rate increased from approximately 7% in 1990 to 21% and is projected to reach 29% by 2030. In Thailand, the CS rate increased from 39.3% in 2021 to 43.2% in 2023. According to statistics from the Region 7 Health Promotion Center, which covers Roi Et, Khon Kaen, Maha Sarakham, and Kalasin, the rate increased from 46.22% to 50.86% over the same period. In 2023, the CS rate was 59.79% in Maha Sarakham Province, while Borabu Hospital reported rates of 54.29%, 59.62%, and 61.27% from 2021 to 2023, respectively (Ministry of Public Health, 2023). These high rates highlight the need for nursing strategies that support safe postoperative recovery, mobility, and maternal functioning. Beyond the increasing number of procedures, these trends indicate that more mothers may experience postoperative pain, limited mobility, abdominal discomfort, and difficulties returning to self-care and newborn care activities.

Cesarean section is a major surgical procedure that can affect maternal physical, emotional, psychological, and social well-being. Postoperative pain is particularly common during the first 24–48 hours after surgery and may persist for weeks or months. Zandomenico et al. (2022) examined postoperative pain in relation to intraoperative analgesia and reported findings concerning the use of multiple analgesic medications among women who did and did not experience pain during the first 24 hours after cesarean delivery. Postpartum pain has been reported in up to 50% of mothers