

A Comparative Study of the Effects of Skin Contact and Kangaroo Care on Mother's Anxiety

Abstract

Background: The aim of the study was to compare of mother and newborns abdominal contact and Kangaroo skin on mother's anxiety. **Materials and Methods:** This study is a single-blind randomized control trial in 2015. Questionnaire about Demographic and Spielberger State-Trait Anxiety Inventory (STAI) was completed for two groups. **Results:** There was no significant difference in maternal anxiety between kangaroo care and abdominal contact by Mann-Whitney test immediately after birth ($Z = -1.33, p = 0.42$) and after 2 months ($Z = -1.47, p = 0.86$). **Conclusions:** The effect of kangaroo contact on mother's anxiety was similar to abdominal contact and if the kangaroo care is done for a short period of time, it will not change maternal anxiety.

Keywords: Anxiety, kangaroo care method, skin to skin contact

Introduction

Many supportive methods have been introduced to decrease mother's anxiety.^[1] One of them is the kangaroo care between a mother and her child.^[2] In the Kangaroo care, a naked infant is placed between the mother's breasts.^[3] In abdominal contact, a naked infant is placed on the mother's belly skin for a short period of time but mothers and infants do not have any face-to-face contacts.^[4] Nowadays, the abdominal skin contact is exercised in many hospitals, and the Kangaroo care is rarely used.^[5] If the Kangaroo care is done for a shorter period of time for example 5 min, will it still decrease anxiety in comparison with an abdominal skin contact? That's why researchers decided to conduct a comparative study to investigate the effects of the abdominal skin contact and the Kangaroo care on mother's anxiety immediately and 2 months after birth.

Materials and Methods

This study is a parallel single-blind randomized control trial conducted in Torbat Heydarieh in 2015. The Clinical Trials Code is IRCT2014090419039N1. With a confidence interval of 95% and power of 80%, the research sample included 68 individuals. Data collection was available. Two groups were divided by random blocks with the 1:1 ratio.

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The inclusion criteria were the term pregnancy; an Apgar score between 8 and 10 and the exclusion criteria were a Visual Analogue Scale (VAS) above 3; a record of an infant's death. The data collection tools were the questionnaires of demographics, pregnancy information, mother and infant's information, and Spielberger State-Trait Anxiety Inventory (STAI). The state anxiety scale includes 20 items evaluating an individual's feelings at the moment of responding and the trait anxiety scale through expressions. The reliabilities of pregnancy information questionnaire and the information pertaining to mothers and infants, and STAI were $r = 0.84$, $r = 0.77$, $r = 0.89$, and $r = 0.94$, and $r = 0.84$ by using test-re-test method. After obtaining written consents, participants were divided into two groups using random blocks. After interventions for two groups, if VAS was lower than 3, STAI would be filled out also 2 months after birth when mothers visited health centers. The data were analyzed in SPSS (SPSS Version 20, SPSS Inc., Chicago, IL, USA) and descriptive and analytical (Mann-Whitney) methods. The significance level was $p < 0.05$.

Ethical considerations

This study was approved by the Ethics Committee of Torbat Heydariyeh University

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of Medical Sciences by 16.1 code. The written consent was received from all participants.

Results

The mean (SD) of age was 25.76 (6.30) years in the abdominal contact group and 26.75 (5.49) years in the Kangaroo care group. The majority of subjects held high-school educations in the intervention group (16 individuals; 23.55%) and in the authority group (9 individuals; 27.31%). The majority of subjects were housewives (94.16% in the intervention and 87.93% in the authority). The average state anxiety scores of the two groups were not significantly different at birth ($p = 0.42$) and 2 months after delivery ($p = 0.86$) [Table 1]. The average trait anxiety scores did not show any significant differences in both groups ($p = 0.76$) ($p = 0.55$). The two groups were not different from each other in 2 months after birth in terms of the average anxiety score ($p = 0.59$).

Discussion

The current research indicates the average anxiety score of the Kangaroo care was higher than that of the abdominal contact immediately and 2 months after birth, it was not significant. Kangaroo care decreases mother's anxiety.^[6] Comparing the intensities of anxiety indicated that most of the subjects experienced an average level of anxiety, and the two groups were different in 2 months after delivery.^[7] But in another study, results showed that there was a significant difference between mother's anxiety of in the Kangaroo care method and the routine methods.^[8] It was not possible to follow-up and intervene in this method because mothers were discharged in this study. The findings of the study must be considered within its limitations and it did not evaluate mother's anxiety level before the Kangaroo care.

Table 1: Comparison of “Kangaroo care” and “abdominal contact” groups on mothers’ anxiety

Time groups	Birth	After 2 months
	Mean (SD)	Mean (SD)
Kangaroo care	64.62 (6.08)	45.32 (3.42)
Abdominal contact	47.43 (5.76)	46.34 (4.78)
Z*	-1.33	-1.47
p	0.42	0.86

*Mann-Whitney test

Conclusion

If the Kangaroo care is done for a short period of time, it will not change maternal anxiety.

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Conflicts of interest

Nothing to declare.

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