

Abstract

Objectives: The objectives were to verify the changes of first-time pregnant women interacting with infants in the primary outcome of salivary cortisol level and the secondary outcomes of state anxiety score, salivary oxytocin level and approach and avoidance feelings and evaluate the process of the content.

Methods: This study was a randomized, controlled, two-armed trial. Participants were low-risk first-time third trimester pregnant women. Experimental group had a 30- minute infant interaction and control group watched a 30-minute DVD image of infants. Collection of saliva and questionnaires were before and after intervention. All outcomes were compared between and within groups. Opinions and comments for the program were from open-ended questions and provided description data. The Research Ethics Committee of St. Luke's International University (17A-004) approved this study.

Results: There were no differences in the between-group measures for: salivary cortisol levels ($t = -0.70, p = 0.49$); state anxiety score ($t = -1.243, p = 0.22$); saliva oxytocin level ($t = -0.262, p = 0.79$) and avoidance feeling ($t = -1.415, p = 0.16$). The approach feeling was significantly larger in the experimental group ($t = 2.722, p = 0.01$). Within-group before and after measures showed significant differences in both groups for: salivary cortisol levels ($t = 4.57, p = 0.00$; $t = 5.01, p = 0.00$); state anxiety decrease ($t = 9.36, p = 0.00$; $t = 6.09, p = 0.00$); and avoidance feeling decrease ($t = 7.14, p = 0.00$; $t = 5.86, p = 0.00$). The experimental group, salivary oxytocin level was significantly decreased after the intervention ($t = 3.59, p = 0.00$). Changes in the image of infant, decrease anxiety about child-care and delivery were large in the experimental group ($\chi^2 = 6.235, p = 0.01$; $\chi^2 = 14.139, p = 0.00$; $\chi^2 = 13.920, p = 0.00$).

Conclusion: The experimental groups' approach feeling increased significantly compared to the control group. Interactions with an infant and even watching an infant on DVD decreased salivary cortisol level, state anxiety scores and avoidance feelings. Future research, is necessary to consider the following factors: the setting, the content of the control group, the content of the intervention to stimulate oxytocin secretion, the frequency of intervention and better support for first-time pregnant women.

論文要旨

研究目的：乳児とふれ合う経験を持たない妊娠後期の初産婦が、乳児とふれ合うことによる変化を検証する。プライマリーアウトカムは、唾液中コルチゾール濃度、セカンダリーアウトカムは、状態不安得点、唾液中オキシトシン濃度、対児感情評定尺度の接近得点と回避得点である。プロセス評価を行い、初産婦と乳児とのふれ合いについて評価する。

研究方法：2群比較のランダム化比較試験である。対象者は妊娠後期の初産婦で、実験群は乳児の母親の教示のもと30分間乳児とふれ合い、対照群は30分間の乳児の映像を視聴した。両群とも介入前後の2時点(O1、O2)で、唾液採取と質問紙の記載を行った。全てのアウトカムは、群間比較を行い、続けて両群ともに介入前後での群内比較を行った。自由記載に関しては、質的に分析した。本研究は聖路加国際大学研究倫理審査委員会の承認を得て実施した(17-A004)。

研究結果：唾液中コルチゾール濃度、状態不安得点、唾液中オキシトシン濃度、回避得点は両群間で有意な差はなかった ($t=-0.70, p=0.49$; $t=-1.243, p=0.22$; $t=-0.262, p=0.79$; $t=-1.415, p=0.16$)。接近得点の変化量は、実験群の方が有意に大きかった($t=2.722, p=0.01$)。群内比較では両群とも、唾液中コルチゾール濃度、状態不安得点、回避得点が介入前後で有意に低下した ($t=4.57, p=0.00$; $t=5.01, p=0.00$; $t=9.36, p=0.00$; $t=6.09, p=0.00$; $t=7.14, p=0.00$; $t=5.86, p=0.00$)。唾液中オキシトシン濃度は実験群のみ介入後に有意に低下した ($t=3.59, p=0.00$)。乳児のイメージの変化、育児に関する不安の低下、分娩に関する不安の低下は実験群のほうが多かった ($\chi^2=6.235, p=0.01$; $\chi^2=14.139, p=0.00$; $\chi^2=13.920, p=0.00$)。

結論：妊娠後期の初産婦が乳児とふれ合うという介入は、乳児の映像の視聴と比較すると、接近得点を有意に上昇させ、乳児のイメージの変化をもたらした、育児に関する不安と分娩に関する不安を低下させていた。また、2群において介入後に起こった変化は、コルチゾール濃度の低下、状態不安得点の低下、回避得点の低下であった。今後、初産婦が乳児とふれ合うことの効果を検証するためには、対照群の条件の設定、オキシトシンに変化をもたらす介入、介入の回数、初産婦への援助について検討が必要である。