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A Study to Evaluate the Effectiveness of Maternal Fetal Attachment Training on Prenatal Attachment and Maternal Worries Among Pregnant Mothers

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Abstract

Objective: The aim of the study to evaluate the effect of maternal fetal attachment training on level of prenatal attachment and level of maternal worries among pregnant mothers. **Material and Methods:** Experimental study was carried out over a period of two weeks. A Non-probability purposive sampling technique was used to recruit the study participants. All the pregnant mothers above 28 weeks of gestation were included in the study. A total of 61 participants were enrolled in the study and divided into two groups (30 Experimental group, 31 Control group). **Results:** 'z' test was used to compare the level of prenatal attachment among experimental and control group after the intervention, the calculated value of z=2.29 was greater than the tabulated value 1.96 at 0.05 level of significance. With regard to maternal worries among experimental and control group after the intervention, the calculated value of z=1.74 was lesser than the tabulated value1.96 at 0.05 level of significance. **Conclusion:** Hence, the study concluded that the maternal fetal attachment training was effective in increasing prenatal attachment and not significantly effective in reducing maternal worries.

Keywords: Maternal fetal attachment training, prenatal attachment, maternal worries, pregnant mothers

1. Introduction

Pregnancy is a natural, pleasant process in a woman's life, which is also associated with significant stresses due to the physical and mental changes. Pregnancy helps women to enhance their knowledge of the maternal role. Maternal-fetal attachment (MFA) is an affectionate-emotional, warm & close relationship between a mother and her child. This attachment might aid in the adjustment of the pregnant woman to pregnancy (Salehi & Shaali, 2017). According to Rubin (1976), at the end of the second trimester, a pregnant woman becomes much more aware of the presence of an individual inside her body and feels more attached, so she has something very dear and important within herself, giving her a sense of pleasure and pride. Following Rubin, researchers such as Leifer, Cranley, Muller and

Condon have also worked in this field (Bradon et al, 2009; Rubin 1976). Elevated worries can affect mother-infant interactions and cause adverse outcomes for mother and fetus.

Pregnancy and worries go hand in hand. Some women start worrying as soon as they discover their pregnancy. Such worries are more common in woman pregnant for the first time (Leifer, 1977). WHO (World Health Organization) estimated that over 80% of the women with low-risk gestation have experienced some degrees of anxiety in their pregnancy. Of 3–5 pregnant women in developing countries undergoes anxiety problems during pregnancy. (Bennett IM, 2015). In India, recent studies estimated the prevalence of perinatal depression to be between 14% and 24% (Sidhu G, 2019). Researchers estimated in 2020 the magnitude of other pregnancy-related disorders such as pregnancy-related stress and anxiety to be 30.9% and 23% respectively (Aneja, 2017 & Kantipudi S, 2020). Some researchers have reported that mother's attachment to the fetus would develop during pregnancy and it would help her prepare for transition to the motherhood period (Burke C, 2007). And, the prenatal attachment is an important factor in predicting post-partum attachment behaviors, it is associated with mother-infant post-partum interactions and communications and it has an important role in the health of the pregnant mother and her fetus (Dayton, 2010). Maternal fetal attachment training promotes prenatal attachment there by it is an ideal method to encourage parenting process. It is essential to implement the research based findings in Indian setting since it is important to safe guard the life of both the mother and fetus. The prenatal period is a proper chance for evaluating maternal fetal attachment. Since all of the mother's behaviours, actions and thoughts during pregnancy could have more permanent effects on the fetus than any other period of child's life and also since pregnancy is considered a crucial period in the development. So, the researcher decides to carry out this study.

STATEMENT OF THE PROBLEM

A Study to Evaluate the Effectiveness of Maternal Fetal Attachment Training on Prenatal Attachment and Maternal Worries among Pregnant Mothers

Objectives of the study

- To assess the level of prenatal attachment and level of maternal worries among pregnant mothers.
- To evaluate the effect of maternal fetal attachment training on level of prenatal attachment and level of maternal worries among pregnant mothers.
- To find the relationship between level of prenatal attachment and level of maternal worries among pregnant mothers.
- To find the association between level of prenatal attachment and level of maternal worries among pregnant mothers with their selected demographic variables.

OPERATIONAL DEFINITION

Effectiveness

It refers to improvement of prenatal attachment and reduction of maternal worries among pregnant mothers after practicing maternal fetal attachment training.

Maternal Fetal Attachment Training

It refers to the training programme through which pregnant women are taught to engage in behaviours that improves the affiliation and interaction with their unborn child through video assisted teaching.

Prenatal Attachment

It refers to bonding that develops between the mothers and growing fetus during pregnancy which will be assessed using Cranley's maternal fetal attachment scale.

Maternal Worries

It refers to an unpleasant experiences or thoughts that make the mother unhappy which will be assessed using Modified Cambridge Worry Scale.

Pregnant mothers

It refers to women who are at or beyond 28 weeks of gestation, actively carrying a fetus or foetuses inside the womb, attending prenatal care at selected hospital.

HYPOTHESIS

H1- There is a significant difference between the pretest and posttest level of prenatal attachment among pregnant mothers in the experimental group.

H2- There is a significant difference between the pretest and posttest level of maternal worries among pregnant mothers in the experimental group.

H3- There is a significant correlation between prenatal attachment and maternal worries among pregnant mothers.

H4- There is a significant association between level of prenatal attachment and maternal worries with selected demographic variables among pregnant mothers.

MATERIALS AND METHODS

Quasi experimental pretest posttest control group design was used for this study. All the pregnant mothers above 28 weeks of gestation were included in the study. The study was carried out among pregnant mothers who are attending the OPD of Obstetrics and Gynecology department at Sri Ramakrishna Hospital, Coimbatore. A total of 61 samples were selected through non-probability purposive sampling, 30 were assigned to experimental group and 31 for control group. Pre-test data were collected using Cranley's maternal fetal attachment scale and Modified Cambridge worry scale through questionnaire. "Maternal Fetal Attachment Training" was administered by using video assisted teaching and four techniques included such as caressing the bump, counting movements, talking and singing to

the baby and their benefits were explained to the experimental group. The pregnant mothers were asked to practice all the four techniques daily for 1 hour for two weeks. The researcher informed the participants that they will be connected through a private Whatsapp group to remind them to practice maternal fetal attachment activities daily for two weeks. The pregnant mothers were asked to maintain a diary and note their practice of each technique. At the next antenatal visit, after two weeks from enrollment in the study post-test was conducted using the same assessment tool.

VALIDITY OF THE TOOL

The tools were validated by five subject experts in the field of Obstetrics and gynaecological nursing.

RELIABILITY

The reliability coefficient was obtained for Cranley's maternal fetal attachment scale and Modified Cambridge worry scale were 0.90 and 0.73 respectively.

ETHICAL CONSIDERATION

The proposal of the study and tool were presented to the institutional ethical Committee of Sri Ramakrishna Hospital, Coimbatore and the same was approved by the committee members.

RESULTS

Table 1.1: Comparison of the level of prenatal attachment before and after the training among the experimental group

Experimental Group	Mean	Standard Deviation	Mean Difference	Calculated Value	Table Value
Pre test Post test	92.03 99.97	9.28 9.01	7.94	6.15***	3.66

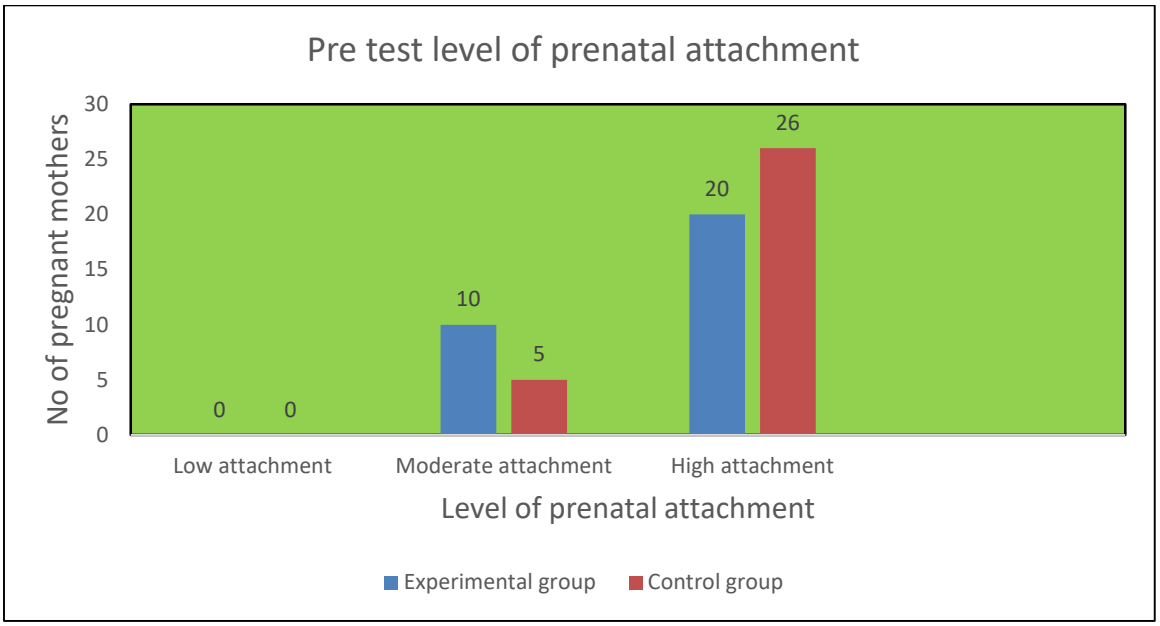

Figure 1: Pre test level of prenatal attachment among pregnant mothers

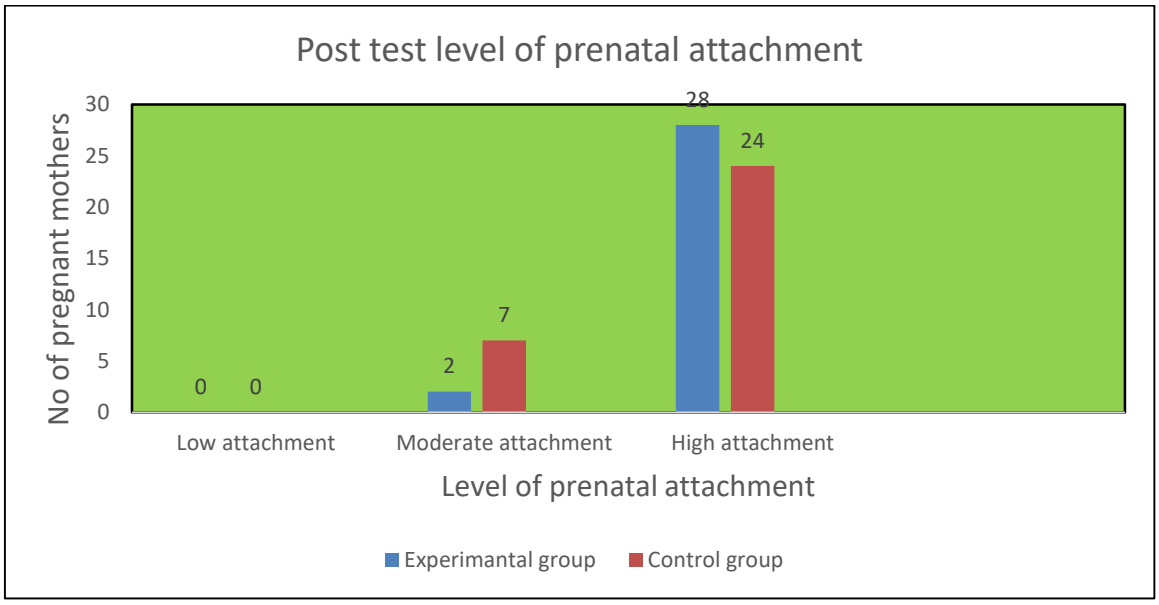

Figure 2: Post test level of prenatal attachment among pregnant mothers

Table 1.2: Comparison of the post-test scores of prenatal attachment between the experimental and control group

Group	Mean	Standard Deviation	Mean Difference	Calculated Value	Table Value
Experimental group Control group	99.97 94.23	9.01 10.54	5.74	2.29*	1.96

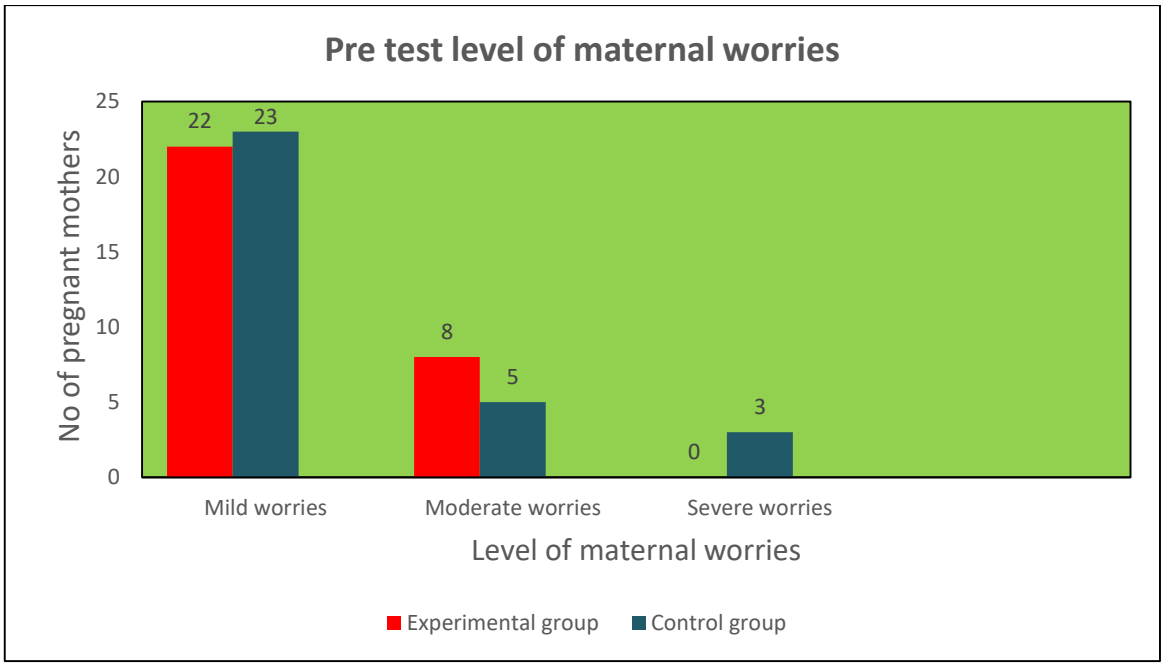

Figure 3: Pre test level of maternal worries among pregnant mothers

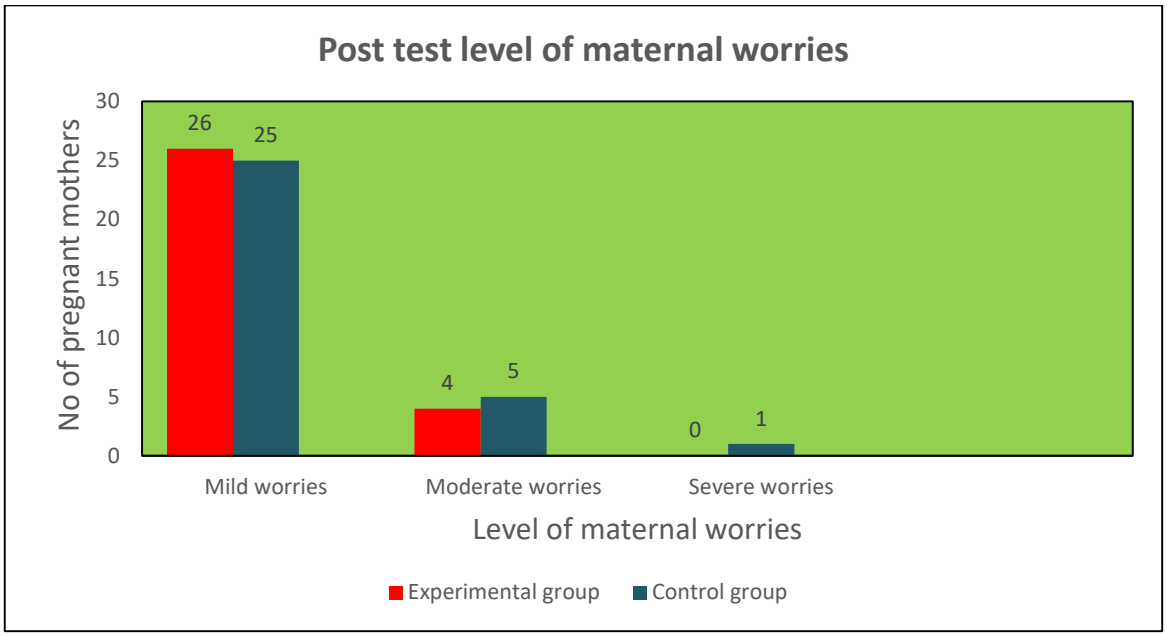

Figure 4: Posttest level of maternal worries among pregnant mothers

Table 1.3: Comparison on level of maternal worries before and after the training the among the experimental group

Experimental Group	Mean	Standard Deviation	Mean Difference	Calculated Value	Table Value
Pre test Post test	17.03 12.43	13.18 12.34	4.60	3.46**	2.76

Table 1.4: Comparison of the posttest scores of maternal worries between the experimental group and control group

Group	Mean	Standard Deviation	Mean Difference	Calculated Value	Table Value
Experimental group Control group	12.43 18.45	12.34 14.52	6.02	1.74*	1.96

Table 1.5: Correlation between prenatal attachment and maternal worries among pregnant mothers

Group	Mean	Standard deviation	'r' Value	Table value
Pre-test (prenatal attachment)	94.11	9.37	- 0.11	0.250
Pre-test (Maternal worries)	18.66	14.36		

Significance at 0.05 level

Association between the level of prenatal attachment and level of maternal worries among pregnant mothers with their selected variables

The Chi square test was used to find the association between the level of prenatal attachment and maternal worries with selected variables and it found that there is no association between level of prenatal attachment and any of the selected variables. But there was an association between maternal worries and gestational weeks (χ^2 =4.29) at 0.05 level of significance.

DISCUSSION

Similar study was conducted by Mohapatra S (2021) to assess fetal movement count training on prenatal bonding and maternal anxiety. Maternal antenatal attachment scale and self structured anxiety scale was used to collect the data. The results showed that pretest level of prenatal attachment in experimental group showed that majority 48 (55.2%) had average attachment, 26 (29.9%) had poor attachment and 13 (14.9%) had good attachment. In control group majority 46 (53.5%) had average attachment, 23 (26.7%) had poor attachment and 17 (19.8%) had good attachment. Whereas the current study showed that the majority of pregnant mothers in both the groups had high attachment.

Thomas N (2018) conducted a study to assess fetal movement count training on prenatal attachment and maternal worries, Mysuru. The results showed that the pretest and posttest score of prenatal attachment which was 73.18 and 75.5 increased, with a mean difference of 2.32. The calculated't' value was 6.3 which was significant at 0.05 level. The study found that the training was effective in increasing the prenatal attachment. It supported the current study.

CONCLUSION

The findings of the study concluded that Maternal fetal attachment training was effective in increasing the prenatal attachment among pregnant mothers. And, it was not significantly effective in reducing maternal worries. Hence, the researcher suggests that nurses should adopt this maternal fetal attachment training to improve the prenatal attachment among pregnant mothers.

References

1. Aneja, J., Chavan, B. S., Huria, A., Goel, P., Kohli, N., & Chhabra, P. (2017). Perceived stress and its psychological correlates in pregnant women: An Indian study. *International Journal of Culture and Mental Health*, *11*(3), 268–279. https://doi.org/10.1080/17542863.2017.1364284
2. Bennett, I. M., Schott, W., Krutikova, S., & Behrman, J. R. (2015). Maternal Mental Health, and child growth and development, in four low-income and middle-income countries. *Journal of Epidemiology and Community Health*, *70*(2), 168–173. https://doi.org/10.1136/jech-2014-205311
3. Burke, C. (2007). The view of the child: Releasing "Visual voices" in the design of Learning Environments. *Discourse: Studies in the Cultural Politics of Education*, *28*(3), 359–372. https://doi.org/10.1080/01596300701458947
4. Cranley, M. S. (1981). Development of a tool for the measurement of maternal attachment during pregnancy. *Nursing Research*, *30*(5). https://doi.org/10.1097/00006199-198109000-00008
5. Dayton, C. J., Levendosky, A. A., Davidson, W. S., & Bogat, G. A. (2010). The child as held in the mind of the mother: The influence of prenatal maternal representations on parenting behaviors. *Infant Mental Health Journal*, *31*(2), 220–241. https://doi.org/10.1002/imhj.20253
6. Leifer M. (1977). *Apa PsycNet*. American Psychological Association. https://psycnet.apa.org/record/1977-27356-001
7. Rubin, R. (1976). Maternal tasks in pregnancy. *Journal of Advanced Nursing*, *1*(5), 367–376. https://doi.org/10.1111/j.1365-2648.1976.tb00921
8. Salehi, K., Salehi, Z., & Sohrabi, Z. (2017). A comparison between the effect of education of fetal movement counting during the second and third trimesters on maternal fetal attachment in first time pregnant women. *Iran Journal of Nursing*, *30*(109), 23–31. https://doi.org/10.29252/ijn.30.109.23
9. Sidhu, T., Sidhu, G., Kaur, P., Lal, D., & Sangha, N. (2019). Evaluation of peripartum depression in females. *International Journal of Applied and Basic Medical Research*, *9*(4), 201. https://doi.org/10.4103/ijabmr.ijabmr_23_19.