

## To evaluate the effectiveness of maternal and infant dyad on attachment among postnatal mothers in Narayana Medical College Hospital, Nellore

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### Abstract

**Background:** Bonding begins rapidly after birth, and reflects the feelings of parents towards the newborn. Maternal and infant bonding influence that child's psychological and physical development. The attachment is like a harmony such as look, feel and smell with each other is one of the most fulfilling events for both mother and child.

**Aim:** The aim of the study was to identify the effectiveness of maternal and infant dyad on attachment behavior among postnatal mothers.

**Objectives:** 1. To assess the maternal and infant attachment behavior. 2. To evaluate the effectiveness of maternal and infant dyad on attachment behavior among postnatal mothers. 3. To find the association between maternal and infant dyad on attachment behavior among postnatal mothers with selected socio demographic variables.

**Methods:** A quantitative approach with pre-experimental one group pretest post test design, 100 Post natal mothers were selected by using Non-probability convenience sampling technique.

**Results:** Study revealed that, In pretest, 6 (6%) babies had ambivalent attachment, 54 (54%) babies had avoidant attachment and 40(40%) babies had secure attachment. In post test 3(3%) babies had ambivalent attachment, 25(25%) babies had avoidant attachment and 72(72%) babies had secure attachment.

**Conclusion:** This study concluded that, the maternal and infant dyad was effective on attachment among postnatal mothers.

**Keywords:** maternal and infant dyad, attachment behavior, postnatal mothers

### Introduction

The attachment is like a harmony such as look, feel and smell with each other is one of the most fulfilling events for both mother and child. Human infant enter the world with a need for a primary attachment to mother. It is like a how kangaroo is carried by its mother. Mother infant dyad is establishing bond between the mother and baby by means of establishing all Skin to skin contact, breast feeding, mother responds to infant cues, mother able to independently latch the infant <sup>[1]</sup>. Attachment behavior depends on interaction. It is a reciprocal system of behaviors between an infant and caregiver-generally the mother. The term reciprocal is apt because not only does attachment affects the child's behavior but also it affects the responses of the mother, who emits care giving responses in the presence of signals from the infant <sup>[2]</sup>.

### Need for the study

Among the attachment behavior, body contact and proximity of the mother to the infant are essential for the child's growth. Variation in the expression of maternal physical engagement gives us the opportunity to observe and understand the implication and the influences of early physical contact for the wellbeing of the infant. All children seek physical contact with their mother, and feel comfort in being close to her. Newborn care refers to the essential care provided to the newborn baby by the mother or by the care provider such as, breast feeding, maintaining body temperature, care of the cord, care of the eyes, and prevention of infection and injuries

<sup>[3]</sup>. In pregnancy, the expectant mother develops a loving relationship with her fetus, which Muller defines as Maternal-Fetal Attachment (MFA) (Muller, 2013) <sup>[4]</sup>.

A study was conducted to examine the association of breastfeeding with maternal sensitive responsiveness and infant-mother attachment security and disorganization. 675 participants of a prospective cohort study. Questionnaires breastfeeding practices were administered at 2 and 6 months postpartum. At 14 months, sensitive responsiveness was assessed in a 13-minute laboratory procedure using Ainsworth's sensitivity scales, and attachment quality was assessed with the Strange Situation Procedure. Continuous analyses showed that longer duration of breastfeeding was associated with more maternal sensitive responsiveness (B = 0.11, 95% confidence interval [CI] 0.02; 0.20, p < .05), more attachment security (B = 0.24, 95% CI = 0.02; 0.46, p < .05), and less disorganization (B = -0.20, 95% CI -0.36; -0.03, p < .05). Duration of breastfeeding was not related to the risk of insecure-avoidant or insecure-resistant versus secure attachment classification, but longer duration of breastfeeding predicted a lower risk of disorganized versus secure attachment classification (n = 151; odds ratio [OR] = 0.81, 95% CI 0.66 to 0.99, p = .04) <sup>[5]</sup>.

### Problem Statement

A study to evaluate the effectiveness of maternal and infant dyad on attachment among postnatal mothers in Narayana Medical College Hospital, Nellore.

**Objectives**

1. To assess the maternal and infant attachment behavior.
2. To evaluate the effectiveness of maternal and infant dyad on attachment behavior among postnatal mothers.
3. To find the association between maternal and infant dyad on attachment behavior among postnatal mothers with selected socio demographic variables.

**Hypotheses**

**Null Hypothesis**

1. **H<sub>01</sub>**: There is no statistically significant difference in the post-test than the pre-test on attachment behavior after implementation of maternal and infant dyad among postnatal mothers.
2. **H<sub>02</sub>**: There is no statistically significant association between maternal and infant dyad on attachment behavior among postnatal mothers with selected socio demographic variables.

**Delimitations**

1. Postnatal mothers in Narayana General Hospital, Nellore
2. The sample size of 100 postnatal mothers only
3. Duration of data collection is 6 weeks.

**Materials and Methods**

- **Research Approach:** Quantitative research approach
- **Design:** A pre-experimental design - one group pretest post test design.
- **Setting:** Postnatal ward at Narayana Medical College Hospital, Nellore.

**Population**

- **Target population:** All postnatal mothers in postnatal ward.
- **Accessible population:** Postnatal mothers admitted in NMCH, Nellore
- **Sample size:** A sample of 100 Postnatal mothers admitted in postnatal ward at Narayana Medical College Hospital, Nellore.
- **Sampling Technique:** Non-probability Convenience sampling technique.

**Sampling criteria**

**Inclusion criteria**

- Mothers who delivered by normal vaginal delivery/LSCS
- Mothers who can understand and speak Telugu (or) English.
- Mothers who are willing to participate in the study.

**Exclusion criteria**

- Mothers whose baby admitted in NICU
- Mothers with postnatal complications
- Mothers who had Preterm labor

**Part-I: Socio-demographic variables**

It includes age, education, occupation, family income, religion, area of living, type of family, mode of delivery, parity, gender of the baby, mother’s health condition and condition of baby at birth.

**Part-II: Infant Quick Visual Attachment Styles**

It consists of 28 items.

**Scoring Key**

- YES = 1
- NO = 0

**Score Interpretation**

Score	Interpretation
22 - 28	Secure attachment
15 - 21	Avoidant attachment
8 - 14	Ambivalent attachment
0-7	Disorganized attachment

**Part-III**

Observational Protocol on Mother and Infant Dyad

**Part: IV**

Intervention Protocol

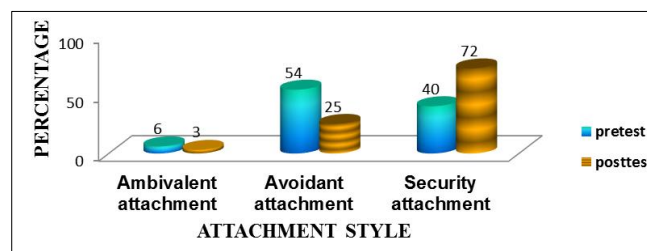
- Skin to skin contact
- Mother independently position self for feeding
- Breast feeding
- Mother responds to infant cues

**Results & Discussion**

**Table 1:** Frequency and Percentage distribution based on Attachment of Babies (N=100)

S. No	Attachment style	Pre test		Post test	
		f	%	f	%
1.	Ambivalent attachment	6	6	3	3
2.	Avoidant attachment	54	54	25	25
3.	Secure attachment	40	40	72	72

The study reveals that, in pretest, 6 (6%) babies had ambivalent attachment, 54 (54%) babies had avoidant attachment and 40(40%) babies had secure attachment. In post test 3(3%) babies had ambivalent attachment, 25(25%) babies had avoidant attachment and 72(72%) babies had secure attachment. This indicates that maternal infant dyad is effective in post test than the pretest. Hence, null hypothesis (H<sub>01</sub>) is rejected.



**Fig 1:** Percentage distribution of babies based on Attachment behavior

**Table 2:** Effectiveness of Maternal and Infant Dyad on Attachment among Postnatal Mothers. (N=100)

Criteria	Pretest		Posttest		Z value
	M	SD	M	SD	
Attachment score	20.260	3.021	22.440	2.815	C=6.138, T=1.8, S**

**Part-V**

Association between the effectiveness of maternal and infant attachment among postnatal mothers

There was a significant association found between the effectiveness of maternal infant attachment among postnatal mothers with socio demographic variables like education, occupation and area of living.

### Major Findings of the Study

- The study reveals that, in pretest, 6 (6%) babies had ambivalent attachment, 54 (54%) babies had avoidant attachment and 40(40%) babies had secure attachment. In post test 3(3%) babies had ambivalent attachment, 25(25%) babies had avoidant attachment and 72(72%) babies had secure attachment. This indicates that maternal infant dyad is effective in improving the attachment behavior between mother and baby. Hence, null hypothesis ( $H_{01}$ ) is rejected.
- The pretest mean score on attachment was 20.260 with standard deviation was 3.021, in post test mean score was 22.440 with standard deviation was 2.815. The calculated value is 6.138 and the tabulated value is 1.8. The calculated value is greater than tabulated value at the level of  $p < 0.01$ . So, the null hypothesis ( $H_0$ ) is rejected. Research hypothesis is accepted. This indicates that Maternal Infant Dyad is effective on improving the Attachment of the baby.
- There was a significant association found between the effectiveness of maternal infant attachment among postnatal mothers with socio demographic variables like education, occupation and area of living

### Conclusion

This study concluded maternal and infant protocol dyad is effective in improving the maternal and infant attachment.

### Recommendations

- A similar study can be conducted for larger group of samples.
- A similar study can be conducted to find the effectiveness of maternal and infant dyad protocol among caesarean mothers.
- A similar study can be done by comparing the effectiveness of maternal and infant dyad protocol among caesarean mothers.
- A similar study can be done by comparing the effectiveness of maternal and infant dyad protocol among postnatal mothers in community settings.
- A similar study can be replicated on large sample size, in different settings with in different population as longitudinal study.
- A comparative study can be done to assess the effectiveness of structured teaching programme among postnatal mothers.

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