Impact of Mother Attachment on the Psychological Immunity among girl students studying at Senior Secondary level

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Abstract: Attachment can be understood as a long-lasting, deep and strong emotional bond formed between the primary caregiver (mother) and the child or infant, especially during early formative years which arises out of the human need to connect and seek affection, love, and security. It is seen that early attachment experiences impact our behaviour and relationships as adults. Mother-daughter attachment is a unique form of attachment which is studied under the Mother-Daughter Attachment Model helping us to explore and understand the attachment needs of the mother-daughter relationship across ages, cultures, and areas. The current study does not focus on the intergenerational attachment between mothers and girls, rather it tries to study the impact of gender as an independent variable on mother attachment and psychological immunity of 2160 adolescents (n1 (boys) = 1080; n2 (girls) = 1080) studying in senior secondary classes (class XI) of government and private schools in Delhi NCR. It also aims to investigate the impact of mother attachment as an independent variable on the Psychological Immunity (PI) of adolescents and among girls specifically, using linear regression analysis. It is seen that gender plays no significant role in influencing mother attachment, though girls are reported to demonstrate lesser externalizing behaviours than boys in case of avoidant or insecure attachments; however, mother attachment plays a significant role in impacting PI of students in the transition phase from childhood to adulthood. The study reveals how coping behaviours, daily stress management, and the mental well-being of adolescents are closely linked to maternal attachment, though mother attachment is not found to significantly impact the PI of girl students in particular. The need for mental health professionals to better understand the intricacies of mother-daughter relationships thereby helping to foster the need to support availability of better guidance and counselling services, healthier aging among mothers, better mental health and emotional well-being of girls and women is recommended.

Keywords: Attachment, Coping, Correlation, Girls, Mother-attachment, Mental health Psychological Immunity, Regression analysis, Senior secondary level, Well-being.

1 Introduction

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It is widely known that attachment patterns play a significant role in supporting relationships in later life such as adolescence and adult life. Such findings further support Ecological Theory of Development (Eco Theory) 

**Research Tools:**

The research tools used were Mother Attachment Inventory (originally developed by Armsden and Greenberg, 1987) and the Psychological Immunity Competency Inventory (Olah, 2009). Both tools were adopted for the present study.

**Statistical examination:**

Linear regression analysis was performed using the SPSS software (version 23.0) for the present study.

**Sample design:**

The sample was selected using stratified random sampling from female students studying in class XI of Coed schools (both government and private) located in 10 districts of Delhi. The students were recruited approximately 2160 adolescents comprising of 1830 male and 330 female students. The students were selected randomly from each school, and permission was sought for data collection. The identified factors include: gender of baby as desired; long term carving for infant leading to Assistive Reproductive Therapy (ART); history of miscarriages; visualization of pregnancy due to use of sonography and manual operations; and perception of stress due to sonography.

**Dependent Variable (DV):**

To study the impact of gender as Independent Variable (IV) on Mother Attachment (MA), the existence of a crucial link between sexuality and quality of parental attachment (mother and father attachment: secure, insecure) during the transition years of early adolescence (mean age = 13.8 years) was reported (Greenberg, 1987). The findings show that presence of insecure (ambivalent) attachment with mother leads to greater sexual involvement especially among boys while insecure (avoidant) attachment with mother leads to emotional disinvestment (decreases sexual involvement). However, insecure (avoidant) attachment with father influences sexual decisions among girls.

**Objectives**

1. To study the impact of gender as Independent Variable (IV) on Mother Attachment (MA)
2. To study the impact of gender as Independent Variable (IV) on Psychological Immunity (PI) as Dependent Variable (DV)
3. To study the impact of gender as Independent Variable (IV) on Perceptions of Stress due to Sonography (PSS) as Dependent Variable (DV)

**2 Materials and Methods**

**Sample design:** A representative sample of 235 community children (comprising of boys = 106, girls = 129) was involved in the study. The sample was selected using stratified random sampling from female students studying in class XI of Coed schools (both government and private) located in 10 districts of Delhi. The students were recruited approximately 2160 adolescents comprising of 1830 male and 330 female students. The students were selected randomly from each school, and permission was sought for data collection.

**Research Tools:** The research tools used were Mother Attachment Inventory (originally developed by Armsden and Greenberg, 1987) and the Psychological Immunity Competency Inventory (Olah, 2009). Both tools were adopted for the present study.

**Statistical examination:** Linear regression analysis was performed using the SPSS software (version 23.0) for the present study.

**3 Results and discussion**
Findings for objective-1

Table 1. Regression analysis summary between selected independent variable (gender) and maternal attachment (dependent variable)

<table>
<thead>
<tr>
<th>D.V. (Predictor)</th>
<th>R</th>
<th>R Square</th>
<th>S.E.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: D.V. = Dependent Variable; I.V. = Independent Variable; GEN = Gender; S.E.E = Std. Error of Estimation

The regression analysis used to predict the relationship between maternal attachment and gender reveals the \( R \) value as \( .242 \) as observed from the table and the \( R^2 \) value of 0.061 which is indicative of 6.1% variance.

Table 2. Summary of ANOVA for regression analysis

<table>
<thead>
<tr>
<th>D.V.</th>
<th>MODEL</th>
<th>S.S.</th>
<th>DF</th>
<th>M.S.</th>
<th>F</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother Attachment</td>
<td>Regression</td>
<td>70.349</td>
<td>1</td>
<td>70.349</td>
<td>1.884</td>
<td>.170</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>68242.618</td>
<td>1828</td>
<td>37.332</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>68312.967</td>
<td>1829</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: D.V. = Dependent Variable; S.S. = Sum of Squares; df = degree of freedom

For mother attachment, the \( F \) value is 1.884 (\( p > 0.05 \)). Hence it is deduced that the resultant regression model does not predict the Mother Attachment significantly. Table 2 shows the ANOVA results which indicate that the regression model (\( p = .170 \), which is greater than 0.05) does not predict the outcome model. Hence it is not a good fit.

Table 3. Coefficients summary for regression analysis

<table>
<thead>
<tr>
<th>DV</th>
<th>UNSTANDARDIZED COEFFICIENTS</th>
<th>STANDARDIZED COEFFICIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IV B Std. Error Beta t Sig.</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: D.V. = Dependent Variable; I.V. = Independent Variable; MA = Mother Attachment

From table 3 it can be understood that gender is not significant predictor (\( p > 0.05 \)) of Maternal Attachment among secondary school students.

Findings for objective-2

The present study also attempted to highlight the impact of mother attachment as Independent Variable (IV) on Psychological Immunity (PI) as Dependent Variable (DV).

Table 4. Regression analysis summary between Maternal attachment and Psychological Immunity

<table>
<thead>
<tr>
<th>D.V. (Predictor)</th>
<th>R</th>
<th>R Square</th>
<th>S.E.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: D.V. = Dependent Variable; I.V. = Independent Variable; S.E.E = Std. Error of Estimation, PI = Psychological Immunity, MA = Mother Attachment

From table 4 it can be stated that value of \( R \) i.e. multiple correlation is \( .700 \), and \( R^2 \) i.e. coefficient of determination has value 0.49 (2024)
of .650, thereby indicating that (Maternal Attachment) account for 65% of the variation seen in PI of boys and girls studying at senior secondary level (Class XI) in selected government and private schools in Delhi.

Table 5. Summary of ANOVA for regression analysis

<table>
<thead>
<tr>
<th>D.V.</th>
<th>MODEL</th>
<th>S.S.</th>
<th>DF</th>
<th>M.S.</th>
<th>F</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTHER ATTACHMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 5, it can be seen that for maternal attachment, the \( F \)-value is .102 (p<0.05) which helps us to deduced that the resultant regression model predicts the PI highly significantly, hence it is a good fit.

Table 6. Coefficients summary for regression analysis

<table>
<thead>
<tr>
<th>DV</th>
<th>UNSTANDARDIZED COEFFICIENTS</th>
<th>STANDARDIZED COEFFICIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 6, it can be deduced that independent variable maternal attachment contributes positively towards PI. For MA, the value of B is 0.007 and t is .320, p<0.05. Hence, it can be told that maternal attachment is a significant predictor (p<0.05) of PI among secondary school students.

Findings for Objective 3

Table 7. Regression analysis summary between Maternal attachment and Psychological Immunity

<table>
<thead>
<tr>
<th>D.V.</th>
<th>I.V. (Predictor)</th>
<th>R</th>
<th>R Square</th>
<th>S.E.E.</th>
</tr>
</thead>
</table>

From table 7, it can be seen that value of \( R \) i.e. multiple correlation is .015, and \( R^2 \) i.e. coefficient of determination has value of .000, thereby indicating that (Maternal Attachment) account for 0% of the variation seen in PI of girls studying at senior secondary level (Class XI) in selected government and private schools in Delhi.

Table 8. Summary of ANOVA for regression analysis

<table>
<thead>
<tr>
<th>D.V.</th>
<th>MODEL</th>
<th>S.S.</th>
<th>DF</th>
<th>M.S.</th>
<th>F</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9. Coefficients summary for regression analysis

<table>
<thead>
<tr>
<th>DV</th>
<th>UNSTANDARDIZED COEFFICIENTS</th>
<th>STANDARDIZED COEFFICIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>PI</td>
<td>156.432</td>
<td>1.214</td>
</tr>
</tbody>
</table>

Note: D.V. = Dependent Variable; I.V. = Independent Variable; MA = Maternal Attachment; PI = Psychological Immunity

From table 9, it can be deduced that independent variable mother attachment, the value of B is 0.015 and t is .503, p>0.05. Hence, it can be told that maternal attachment is not a significant predictor (p>0.05) of PI among secondary school girls.

The present study clearly points out the influence of maternal attachment on the nature and type of relationships formed by the child in the future.

- The type of maternal attachment displayed directly impacts the nature of adult attachment, sexuality and, even romantic relationships in the future. [34,35]
- It is seen that insecure attachment with mother (ambivalent or avoidant) results in greater sexual experimentation and exploration among boys. [25]
- Strong evidence in the form of relevant literature review performed as part of this study reveals that nature of maternal attachment impacts display of externalizing behaviour (mal-adaptive behaviour) seen more in boys than girls. [25]
- The presence of secure attachment with mother leads to better adjustment in the individual and this attachment and this maternal attachment is itself under the impact of several factors from the very initial stages of prenatal development such as ART, increased longing for infant, history of failed pregnancies among many others. [16]

Despite strong evidence regarding influence of maternal attachment on gender related attachments the present study shows that gender as an independent variable has no impact on the same, hence gender is not a significant predictor (p>0.05) of maternal attachment.

4 Conclusion

Research conducted by Bowlby (1988) established that attachment styles toward mothers or caregivers can predict the quality of future relationships. Previous studies have shown that the relationship between daughters and their mothers often exhibits closeness, intimacy, and support, resulting in a profound bond throughout their lives. Furthermore, mother-daughter relationships tend to display higher levels of interdependence and emotional connection compared to other types of relationships. Consequently, the nature of the mother-daughter relationship significantly influences the social and psychological well-being of daughters. Although the impact of family ties on personality and well-being has been a subject of research in developmental psychology, the literature exploring the relationship between mother-daughter dynamics and the well-being of daughters is still limited. As it was seen that the existing research primarily focuses on Western cultures, but child-rearing practices and family dynamics are likely to vary across different cultures. Hence, the need for conducting research in this area was clearly felt in order to establish and validate the connections between mother-daughter relationships and the overall psychological immunity resulting in the well-being of daughters. Hence, the findings of this study provide empirical evidence supporting the strong association between maternal attachment and coping behaviours, daily stress management, and the mental well-being of daughters. These results have practical implications for mental health professionals, as they shed light on the complex dynamics of mother-daughter relationships. Armed with this knowledge, mental health professionals can offer guidance and counselling services that aim to strengthen future adult relationships, promote healthier aging among mothers, and enhance the emotional well-being of women.

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4 References


