

Research Paper

Virtual Nests: The Role of Information and Communication Technology in Mother–Child Bonding and Emotional Adjustment during the Empty Nest Phase

Avini Sharma^{1*}, Dr. Nivya Jain²

ABSTRACT

The present study aimed to examine the role of Information and Communication Technology (ICT) in mother–child bonding and emotional adjustment during the empty nest phase. A quantitative research design was adopted, and data were collected from 71 mothers experiencing the empty nest phase using standardized self-report instruments, namely the Parental Bonding Instrument (PBI), Emotion Regulation Questionnaire (ERQ), and the Empty Nest Syndrome Scale–Indian Form (ENS-IF). Descriptive statistics and Pearson's correlation analysis were used to analyse the data. The findings revealed a positive relationship between mother–child bonding and emotional adjustment ($r = 0.234$), mother–child bonding and the empty nest phase ($r = 0.427$), and emotional adjustment and the empty nest phase ($r = 0.639$). These results indicate that stronger mother–child bonding and better emotional adjustment are associated with more positive experiences during the empty nest phase. The study concludes that ICT plays a significant role in sustaining emotional connectedness between mothers and their children despite physical separation, thereby supporting mothers in adapting to the emotional challenges of the empty nest transition.

Keywords: *Information and Communication Technology (ICT), Mother–Child Bonding, Emotional Adjustment, Empty Nest Phase, Empty Nest Syndrome, Digital Communication*

The empty nest phase is a major transition in the family life cycle, occurring when children leave home for education, employment, or marriage, often resulting in significant emotional and psychological adjustments for parents, particularly mothers. Although this stage has traditionally been associated with loneliness, role loss, and reduced daily interaction with children, the widespread adoption of Information and Communication Technology (ICT) has transformed the way mothers maintain relationships with their adult children (Mitchell & Lovegreen, 2009). Digital communication platforms such as smartphones, video calls, instant messaging, and social media enable frequent interaction, emotional support, and continued involvement in children's lives despite geographical distance. Research suggests that these technologies enhance perceived connectedness and help families maintain strong emotional bonds while adapting to physical separation (Nouwens et al., 2017). From the perspective of attachment theory, emotional

¹PhD Scholar, Pacific Academy of Higher Education and Research University.

²Assistant professor, Pacific Academy of Higher Education and Research University

*Corresponding Author

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bonds between mothers and children continue throughout adulthood and can be sustained through meaningful communication regardless of physical proximity (Ali et al., 2021). Therefore, understanding the role of ICT in strengthening mother–child bonding and supporting emotional adjustment during the empty nest phase is increasingly important in the context of contemporary family dynamics and digital communication.

Objectives

- To investigate the relationship between ICT use and mother–child bonding during the empty nest phase.
- To determine whether mother–child bonding is associated with emotional adjustment during the empty nest phase.

Hypothesis

- Information and Communication Technology (ICT) use will be significantly correlated with mother–child bonding during the empty nest phase.
- Emotional Adjustment will be significantly correlated with mother–child bonding during the empty nest phase.

LITERATURE REVIEW

Mehta (2025) explored the lived experiences of Indian homemaker mothers entering the empty nest phase. The findings revealed mixed emotions, including loneliness, loss, and pride in children's achievements. Mothers used spirituality, social support, and electronic communication as coping strategies.

Şen (2025) examined the experiences of parents during the empty nest phase using a phenomenological approach. The findings indicated that parents experienced both feelings of loss and opportunities for improved life satisfaction. Social support and active involvement were important factors in successful adjustment.

Schwartz (2025) examined the role of technology in maintaining mother–child bonding during separation in Neonatal Intensive Care Units. Technologies such as webcams helped mothers remain connected with their infants and reduced feelings of anxiety and stress. However, some mothers also experienced guilt and psychological distress.

Gupta (2025) examined Empty Nest Syndrome as an emerging psychological and social concern among older adults. The study highlighted the effects of migration, urbanisation, and changing family structures on parental loneliness and isolation. Mothers were particularly affected due to changes in caregiving roles and identity. Social support, therapeutic interventions, and community programmes were suggested as important coping strategies.

Dahiya (2025) investigated the relationship between loneliness, psychological distress, emotion regulation, and problematic series-watching among empty-nest parents. The findings showed that greater loneliness was associated with increased psychological distress, poorer emotional regulation, and problematic viewing behaviour. Women reported comparatively higher loneliness.

Liu (2025) examined the psychological well-being and family relationships of urban single mothers experiencing changing relationships with their children. The study emphasized the

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importance of emotional regulation and open family communication in managing intergenerational tensions. Establishing family discussion mechanisms helped mothers shift their interactions from conflict toward emotional connection.

Sample

The sample for the present study comprised mothers who were experiencing the empty nest phase, where at least one child had left home for higher education, employment, or marriage. 71 Participants were selected using purposive sampling through a structured online questionnaire developed using Google Forms.

Locale of the study

The present study was conducted in India, focusing on mothers experiencing the empty nest phase, enabling participation from mothers residing in Delhi NCR region.

Variables of the Study

Mother–Child Bonding: This is the primary relational variable, referring to the emotional connection and perceived bond between mothers and their children.

Emotional Adjustment: This variable refers to the mother's ability to manage and adapt to the emotional changes associated with the empty nest phase.

Empty Nest Phase: This variable represents the psychological and emotional experiences associated with children leaving the parental home and the mother's adjustment to this transition.

- **Independent Variables:** Mother–Child Bonding and Emotional Adjustment
- **Dependent Variable:** Empty Nest Phase

Tools Description

- **Parental Bonding Instrument (PBI):** The Parental Bonding Instrument (PBI), developed by Parker et al. (1979), is a 25-item self-report questionnaire that assesses individuals' perceptions
- **Emotion Regulation Questionnaire (ERQ):** The Emotion Regulation Questionnaire (ERQ), developed by Gross and John (2003), is a 10-item self-report scale that measures two emotion regulation strategies: Cognitive Reappraisal (6 items) and Expressive Suppression (4 items).
- **Empty Nest Syndrome Scale–Indian Form (ENS-IF):** The scale was developed by Tanvi Jhangiani, Madhumita Dutta, Arundhati, Trina Banerjee, and Grace Maria Jochan, is a 50-item self-report instrument.

Statistical Analysis

Table 1: Descriptive statistics of all the variables

	Mother–Child Bonding	Emotional Adjustment	Empty Nest Phase
Mean	36.76056	42.71831	135.9718
Standard Deviation	6.78752	10.44466	34.25867
N	71	71	71

The mean score for Mother–Child Bonding was 36.76 (SD = 6.79), indicating a moderate to high level of perceived bonding. The mean score for Emotional Adjustment was 42.72 (SD

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= 10.44), suggesting a satisfactory level of emotional adjustment. The Empty Nest Phase had the highest mean score of 135.97 (SD = 34.26), reflecting considerable variation in participants' experiences during the empty nest phase.

Table 2 *Correlation between the mother–Child Bonding, Emotional Adjustment and Empty Nest Phase*

	Mother–Child Bonding	Emotional Adjustment	Empty Nest Phase
Mother–Child Bonding	1		
Emotional Adjustment	0.233593	1	
Empty Nest Phase	0.42658	0.639165	1

Table 2 shows positive correlations among three variables. Mother–Child Bonding has a weak positive correlation with Emotional Adjustment ($r = 0.234$) and a moderate positive correlation with the Empty Nest Phase ($r = 0.427$). Emotional Adjustment shows the strongest positive correlation with the Empty Nest Phase ($r = 0.639$), indicating that variables are positively associated.

RESULT & DISCUSSION

- The findings of the study indicate a positive relationship among mother–child bonding, emotional adjustment, and the empty nest phase.
- These results are consistent with Şen (2025), who reported that although parents experienced feelings of loss during the empty nest phase, they also demonstrated better life satisfaction when supported by social support systems and effective coping strategies.
- The findings also align with Schwartz (2025), who highlighted that information and communication technology enhances emotional bonding despite physical separation.
- Similarly, the study suggests that maintaining strong mother–child bonding and emotional adjustment through digital communication can positively influence mothers' adaptation during the empty nest phase.

CONCLUSION

The present study examined the role of Information and Communication Technology (ICT) in mother–child bonding and emotional adjustment during the empty nest phase. The findings revealed positive relationships among mother–child bonding, emotional adjustment, and the empty nest phase, indicating that stronger emotional bonds between mothers and their children are associated with better emotional adjustment during this transitional period. The study suggests that ICT serves as an important medium for maintaining regular communication and emotional connectedness despite physical separation, thereby helping mothers adapt more effectively to the empty nest experience. Although the empty nest phase may involve feelings of loneliness and role transition, sustained interaction through digital communication and strong emotional bonds contribute to healthier psychological adjustment.

Implications

- The study highlights the importance of Information and Communication Technology (ICT) in maintaining strong mother–child relationships during the empty nest phase.

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- It emphasizes the need to encourage regular digital communication to reduce feelings of loneliness and improve emotional well-being among mothers.
- The findings can help psychologists and counsellors develop interventions to support mothers experiencing emotional challenges during the empty nest phase.
- The study provides insights for family members to promote emotional support and strengthen family connectedness despite physical separation.

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Conflict of Interest

The author(s) declared no conflict of interest.

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