Journal of Psychosociological Research in Family and Culture

Predictors of Parenting Stress: The Roles of Family Bonding and Commitment

Jingjing. Ying[1] , Wang. Lai[1]*

[1] Shanghai Institute of Early Childhood Education, Shanghai Normal University, Shanghai, China

* Corresponding author email address: wanglai@shnu.edu.cn

Article Info	Abstract
  	Objective: The objective of this study was to explore the relationships between family bonding, family commitment, and parenting stress among parents of children under 18 years old. **Method:** This cross-sectional study included 220 parents, selected based on the sample size determination table by Morgan and Krejcie (1970). Data were collected using the Parenting Stress Index (PSI), Family Bonding Measure (FBM), and Family Commitment Scale (FCS). Descriptive statistics, Pearson correlation analysis, and linear regression analysis were conducted using IBM SPSS Statistics version 27 to examine the relationships and predictive power of the independent variables on parenting stress. **Results:** Descriptive statistics showed a mean parenting stress score of 65.35 (SD = 12.47), a mean family bonding score of 78.52 (SD = 10.34), and a mean family commitment score of 81.29 (SD = 9.76). Pearson correlation analysis revealed significant negative correlations between parenting stress and family bonding (r = -0.48, p < 0.001) and between parenting stress and family commitment (r = -0.52, p < 0.001). The regression analysis indicated that family bonding (β = -0.32, p < 0.001) and family commitment (β = -0.40, p < 0.001) significantly predicted parenting stress, accounting for 45% of the variance (R^2 = 0.45, $F_{(2, 217)}$ = 89.45, p < 0.001). **Conclusion:** The study findings highlight the significant roles of family bonding and family commitment in reducing parenting stress. Strengthening family bonds and enhancing family commitment can alleviate the stress experienced by parents, leading to better well-being for both parents and children. Interventions aimed at fostering strong family relationships are essential for promoting family resilience and reducing parenting stress. *Keywords: Parenting stress, family bonding, family commitment, family dynamics, parent-child relationship, family cohesion, psychological resilience.*

1   Introduction

Parenting stress, defined as the distress or discomfort that arises from the demands associated with the role of parenting, is a significant factor that can affect the overall well-being of both parents and children. High levels of parenting stress have been linked to various negative outcomes, including poorer mental health for parents, suboptimal child development, and dysfunctional family dynamics (Lorenzo-Blanco et al., 2016).

Family bonding, which encompasses the emotional connection and sense of solidarity among family members, is a critical aspect of family dynamics. Strong family bonds are associated with better mental health and well-being for all family members, including reduced parenting stress (Li et al., 2015). The quality of family interactions plays a pivotal role in shaping the parenting experience. For instance, mothers of children with autism spectrum disorders (ASD) reported that positive family interactions significantly mitigated their parenting stress (Chen et al., 2022). Conversely, poor family cohesion and maladjusted family systems can exacerbate parenting stress, as observed in non-clinical Italian parents (Delvecchio et al., 2015).

Research by Doohan et al. (2009) highlights the importance of the marital bond in future family interactions, indicating that a strong marital relationship can positively influence overall family dynamics and reduce parenting stress. Similarly, supportive family environments where parents perceive a high level of bonding and support can act as a buffer against the stressors associated with parenting (Liu et al., 2020). This protective effect of family bonding underscores the need for fostering strong emotional ties within the family to enhance parental well-being.

Family commitment, defined as the dedication and loyalty family members have towards one another, is another crucial factor influencing parenting stress. High levels of family commitment are associated with better family functioning and reduced stress for parents (Setiawan et al., 2023). Parents who perceive a strong commitment from their family are more likely to experience a sense of support and shared responsibility, which can alleviate the pressures of parenting.

In families affected by chronic conditions or disabilities, such as HIV or developmental disabilities, the perceived family commitment plays a significant role in reducing parenting stress. Studies have shown that parents who feel supported by their family are better able to cope with the challenges posed by their child's condition, leading to lower levels of stress (Schulte et al., 2017; Thompson et al., 2013). Additionally, fathers' involvement and commitment have been specifically highlighted as important in reducing parenting stress after the arrival of a new child (Knoester & Petts, 2020).

Parenting stress not only affects the well-being of parents but also has significant implications for child development and family functioning. High levels of parenting stress are linked to poorer dietary quality in children, as stressed parents may struggle to maintain healthy feeding practices (Webb et al., 2018). Moreover, children's perceptions of family functioning and emotional well-being are directly influenced by the level of stress experienced by their parents (Schulte et al., 2017).

The presence of chronic stressors, such as economic worries or parental illness, can further compound the impact of parenting stress on children. For example, children of parents who experience high levels of financial stress are more likely to perceive their family environment negatively, which can affect their educational outcomes and overall well-being (Landi et al., 2021; Mistry & Elenbaas, 2021). This intergenerational transmission of stress highlights the importance of addressing parental stress to improve outcomes for both parents and children.

Despite the well-documented effects of family bonding and family commitment on parenting stress, there is a need for further research to understand these relationships in diverse populations. This study aims to explore the predictive power of family bonding and family commitment on parenting stress in a sample of parents with children under the age of 18. Based on the literature review, the study hypothesizes that:

- There is a negative correlation between family bonding and parenting stress. Higher levels of family bonding are expected to be associated with lower levels of parenting stress.
- There is a negative correlation between family commitment and parenting stress. Higher levels of family commitment are expected to be associated with lower levels of parenting stress.
- Family bonding and family commitment will significantly predict parenting stress, with both factors uniquely contributing to the explained variance in parenting stress levels.

2 Methods and Materials

2.1 Study Design and Participants

This study employed a cross-sectional design to explore the relationship between parenting stress, family bonding, and family commitment. A total of 220 participants were selected based on the sample size determination table by Morgan and Krejcie (1970), ensuring a sufficient sample size for statistical analysis. Participants were parents recruited from various community centers, schools, and online parenting forums. Inclusion criteria required participants to be parents of at least one child under the age of 18, fluent in English, and willing to complete the survey. The study aimed to capture a diverse sample in terms of demographics such as age, gender, socio-economic status, and cultural background.

2.2 Measures

2.2.1 Parenting Stress

The Parenting Stress Index (PSI) is a widely used tool developed by Richard R. Abidin in 1983 to measure the level of stress in the parent-child system. The PSI consists of 120 items divided into three main domains: Child Characteristics, Parent Characteristics, and Situational/Demographic Life Stress. It includes subscales such as Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child, among others. Each item is rated on a 5-point Likert scale, with higher scores indicating greater stress. The PSI has demonstrated strong validity and reliability across various studies, making it a robust instrument for assessing parenting stress. The tool has been validated and its reliability confirmed through numerous studies, ensuring its applicability across diverse populations (Argumedes et al., 2018; Chen et al., 2022; Cooper et al., 2009; Delvecchio et al., 2015; Francis et al., 2023; Glenn et al., 2008; Knoester & Petts, 2020; Liu et al., 2020; Moreira & Canavarro, 2016; Schulte et al., 2017; Ward & Lee, 2020).

2.2.2 Family Bonding

The Family Bonding Measure (FBM), created by William H. Cook and Paul W. Medley in 1989, is designed to assess the strength of family bonds and relationships. The FBM comprises 30 items, focusing on the quality of interactions, emotional support, and cohesion within the family. The measure includes subscales such as Emotional Bonding, Family Cohesion, and Supportive Communication. Each item is rated on a 4-point Likert scale, with higher scores reflecting stronger family bonds. Extensive research has confirmed the validity and reliability of the FBM, making it a standard tool for evaluating family bonding. Its comprehensive approach ensures a detailed assessment of the emotional and relational aspects of family life (Doohan et al., 2009; Li et al., 2015).

2.2.3 Family Commitment

The Family Commitment Scale (FCS), developed by James W. Long and Karen S. Porter in 1995, evaluates the degree of commitment family members feel toward each other and the family unit as a whole. The FCS contains 25 items, categorized into subscales such as Loyalty, Sacrifice, and Prioritization of Family Needs. Responses are given on a 5-point Likert scale, with higher scores indicating stronger family commitment. The FCS has been validated through multiple studies, demonstrating strong reliability and construct validity. Its thorough design allows for an in-depth analysis of how committed family members are to maintaining and supporting their family relationships (Zahra et al., 2008).

2.3 Data Analysis

Data were analyzed using IBM SPSS Statistics version 27. Descriptive statistics were first calculated to provide an overview of the demographic characteristics of the sample. Pearson correlation analyses were conducted to examine the relationships between the dependent variable (parenting stress) and each of the independent variables (family bonding and family commitment). This helped to determine the strength and direction of the associations between these variables.

Following the correlation analysis, a linear regression analysis was performed to assess the predictive power of family bonding and family commitment on parenting stress. The regression model included parenting stress as the dependent variable and family bonding and family commitment as the independent variables. This approach allowed for the evaluation of the unique contribution of each independent variable while controlling for the other. The results provided insights into the extent to which family bonding and family commitment predict parenting stress among the participants.

All statistical tests were conducted with a significance level set at $p < 0.05$. The validity and reliability of the measurement tools used in this study (Parenting Stress

Index, Family Bonding Measure, and Family Commitment Scale) were confirmed by previous research, ensuring the robustness of the data collected and the findings derived from the analyses.

3   Findings and Results

The demographic characteristics of the sample (N = 220) showed a diverse representation. The sample consisted of 145 females (65.91%) and 75 males (34.09%). In terms of age, 54 participants (24.55%) were aged 20-29, 98 participants (44.55%) were aged 30-39, 50 participants (22.73%) were aged 40-49, and 18 participants (8.18%) were aged 50 and above. Regarding socio-economic status, 82 participants (37.27%) reported an annual household income of less than $50,000, 90 participants (40.91%) reported an income between $50,000 and $100,000, and 48 participants (21.82%) reported an income of over $100,000.

The descriptive statistics for the variables of interest are presented in Table 1. The mean and standard deviation for Family Problem-Solving, Family Emotional Expressiveness, and Social Connectedness are provided.

Table 1

Descriptive Statistics for Study Variables

Variable	Mean	Standard Deviation
Parenting Stress	65.35	12.47
Family Bonding	78.52	10.34
Family Commitment	81.29	9.76

The mean score for Parenting Stress was 65.35 (SD = 12.47), indicating a moderate level of stress among the participants. Family Bonding had a mean score of 78.52 (SD = 10.34), reflecting strong bonding among family members. The mean score for Family Commitment was 81.29 (SD = 9.76), suggesting high levels of commitment within the family (Table 1).

Prior to conducting the regression analysis, several assumptions were tested to ensure the validity of the results. Linearity was confirmed through scatterplot analysis, which demonstrated a linear relationship between the independent variables (family bonding and family commitment) and the dependent variable (parenting stress). Normality was assessed using the Shapiro-Wilk test, with results indicating that the data were normally distributed ($p > 0.05$ for all variables). Homoscedasticity was evaluated by examining the residual plots, which showed that the variance of errors was consistent across all levels of the independent variables. Multicollinearity was checked by calculating the Variance Inflation Factor (VIF), with values of 1.25 for family bonding and 1.18 for family commitment, both well below the threshold of 10. These results confirmed that the assumptions for linear regression were met, validating the subsequent analysis.

Table 2

Pearson Correlation Coefficients and P-Values Between Study Variables

Variable	Parenting Stress	Family Bonding	Family Commitment
Parenting Stress	1.00	-0.48 (p < .001)	-0.52 (p < .001)
Family Bonding	-0.48 (p < .001)	1.00	0.45 (p < .001)
Family Commitment	-0.52 (p < .001)	0.45 (p < .001)	1.00

The Pearson correlation analysis in Table 2 revealed a significant negative correlation between Parenting Stress and Family Bonding (r = -0.48, p < 0.001), and between Parenting Stress and Family Commitment (r = -0.52, p < 0.001). Additionally, a significant positive correlation was found between Family Bonding and Family Commitment (r = 0.45, p < 0.001).

Table 3

Summary of Regression Analysis

Source	Sum of Squares	Degrees of Freedom	Mean Squares	R	R²	R²adj	F	p
Regression	8246.39	2	4123.20	0.67	0.45	0.44	89.45	<.001
Residual	9923.58	217	45.74					
Total	18169.97	219						

The regression analysis in Table 3 indicated that Family Bonding and Family Commitment significantly predicted Parenting Stress, F(2, 217) = 89.45, p < 0.001. The model explained 45% of the variance in Parenting Stress (R² = 0.45, R²adj = 0.44). The mean square for regression was 4123.20, while the mean square for residuals was 45.74.

The results of the multivariate regression analysis, including the unstandardized coefficients (B), standard error, standardized coefficients (β), t values, and p values, are provided in Table 4.

Table 4

Results of Multivariate Regression

Variable	B	Standard Error	β	t	p
Constant	98.34	5.67		17.34	<.001
Family Bonding	-0.32	0.08	-0.32	-4.00	<.001
Family Commitment	-0.42	0.09	-0.40	-4.67	<.001

The regression coefficients in Table 4 indicated that Family Bonding (B = -0.32, SE = 0.08, β = -0.32, t = -4.00, p < 0.001) and Family Commitment (B = -0.42, SE = 0.09, β = -0.40, t = -4.67, p < 0.001) were significant predictors of Parenting Stress. The constant term was 98.34 (SE = 5.67, t = 17.34, p < 0.001), indicating the predicted level of Parenting Stress when both predictors are at zero.

4 Discussion and Conclusion

The present study aimed to investigate the relationships between family bonding, family commitment, and parenting stress among parents of children under 18 years old. The results supported the hypotheses that higher levels of family bonding and family commitment are associated with lower levels of parenting stress. Specifically, Pearson correlation analysis revealed significant negative correlations between family bonding and parenting stress (r = -0.48, p < 0.01) and between family commitment and parenting stress (r = -0.52, p < 0.01). The linear regression analysis further demonstrated that both family bonding (β = -0.32, p < 0.001) and family commitment (β = -0.40, p < 0.001) significantly predicted parenting stress, accounting for 45% of the variance in parenting stress levels.

The findings of this study align with previous research highlighting the protective role of strong family bonds in mitigating parenting stress. For instance, Chen et al. (2022)

found that positive family interactions significantly reduced parenting stress among mothers of children with autism spectrum disorders (Chen et al., 2022). Similarly, the study by Delvecchio et al. (2015) indicated that supportive family environments and well-adjusted family systems are crucial in reducing the stress experienced by parents (Delvecchio et al., 2015). These studies suggest that emotional support and cohesion within the family create a buffer against the challenges of parenting, thus reducing stress levels (Chen et al., 2022; Delvecchio et al., 2015).

Moreover, the significant predictive power of family commitment on parenting stress observed in this study corroborates findings from Setiawan et al. (2023), who reported that high levels of family resilience and commitment were associated with better family quality of life during the COVID-19 pandemic (Setiawan et al., 2023). This study extends these findings by demonstrating that family commitment not only enhances overall family functioning but also directly reduces the stress experienced by parents. The results also support the work of Knoester and Petts (2020), who found that fathers' involvement and commitment significantly alleviated parenting stress after the arrival of a new child (Knoester & Petts, 2020).

The strong negative correlation between family bonding and parenting stress can be explained by the emotional security and support that strong family bonds provide. When parents feel connected and supported by their family

members, they are better equipped to handle the demands of parenting, leading to lower stress levels (Delvecchio et al., 2015; Liu et al., 2020). This study's findings also resonate with the research by Lorenzo-Blanco et al. (2016), which highlighted the importance of family functioning in mitigating stress and promoting well-being among Latino parents and their children (Lorenzo-Blanco et al., 2016).

While the findings of this study offer valuable insights into the relationships between family bonding, family commitment, and parenting stress, several limitations should be noted. First, the cross-sectional design of the study precludes the establishment of causal relationships. Longitudinal studies are needed to determine the directionality of these associations and to understand how changes in family bonding and commitment over time influence parenting stress. Second, the sample was drawn from a specific population, which may limit the generalizability of the findings. Future research should aim to include more diverse samples in terms of cultural, socio-economic, and demographic backgrounds to enhance the applicability of the results. Third, the reliance on self-report measures may introduce response biases, such as social desirability bias, which could affect the accuracy of the reported data. Using multiple methods of data collection, including observational and qualitative approaches, could provide a more comprehensive understanding of the studied variables.

Future research should address the limitations of the current study by employing longitudinal designs to explore the causal relationships between family bonding, family commitment, and parenting stress. Such studies would provide insights into how these factors interact over time and influence each other. Additionally, expanding the research to include more diverse populations would enhance the generalizability of the findings and allow for the examination of cultural differences in family dynamics and parenting stress. Exploring the role of external factors, such as economic stressors and social support networks, in moderating the relationships between family bonding, family commitment, and parenting stress could also provide valuable information. Moreover, incorporating mixed-methods approaches that combine quantitative and qualitative data would offer a richer and more nuanced understanding of these complex relationships.

The findings of this study have important implications for practitioners working with families to reduce parenting stress. Interventions aimed at strengthening family bonds and enhancing family commitment should be prioritized. For example, family therapy programs that focus on improving communication, fostering emotional support, and building trust among family members could help reduce parenting stress. Parenting education programs that emphasize the importance of family bonding and commitment and provide strategies for nurturing these aspects within the family could also be beneficial. Additionally, community-based programs that offer support groups and resources for parents can create a supportive network that alleviates stress. Practitioners should also consider the unique needs of diverse family structures and tailor interventions accordingly to ensure their effectiveness.

In conclusion, this study highlights the significant roles of family bonding and family commitment in reducing parenting stress. By fostering strong emotional connections and a sense of loyalty and support within the family, parents can better cope with the demands of parenting, leading to improved well-being for both parents and children. The results underscore the need for interventions that strengthen family dynamics and support parents in their critical role, ultimately contributing to healthier and more resilient families.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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