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Effect of Father Absence on Gratitude and Forgiveness: The Mediating Role of Resilience

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ABSTRACT

Background: Father absence has long been a popular issue in psychology due to its influence on adolescent well-being and development. Empirical studies have demonstrated the detrimental effects of father absence, such as disruptions in prosocial qualities like gratitude and forgiveness. However, the mediating factor between them remains unclear. Hence, this study aims to explore the mediating role of resilience in the influence of father absence on gratitude and forgiveness. **Methods:** 1951 participants completed the Revision of the Father Absence Questionnaire, the Connor–Davidson Resilience Scale, the Gratitude Questionnaire–6 and the Tendency to Forgive Scale. Harman single factor test was conducted followed by confirmatory factor analysis to assess the data for potential common method deviation. **Results:** The results showed that: Father absence was negatively associated with gratitude and forgiveness. Moreover, we found that resilience mediated between father absence and gratitude and forgiveness. **Conclusion:** The findings demonstrate that the undesirable effects of father absence on prosocial qualities may be ameliorated by intervening in the mediating factor among them. In other words, improving the resilience of individuals with paternity deficiency may help improve their gratitude and forgiveness, which is of great significance for the intervention of prosocial quality in individuals with paternity deficiency.

KEYWORDS

Father absence; resilience; gratitude; forgiveness; structural equation model

Introduction

In the realm of family life, the role of fathers holds significant importance in individuals' development. Krampe and Edythe's theory of father presence [1] underscores the essentiality of a father's involvement in this context. The theory posits that father presence refers to a father's psychological presence in a child's life, encompassing emotional proximity and availability, indicative of a favorable mental state. Extensive evidence has demonstrated that a high-quality father presence positively impacts children's mental well-being. Conversely, father absence, the opposite of father presence, has become a pervasive concern in societal development. A multitude of studies have

consistently linked father absence to a range of emotional and behavioral issues [2], encompassing anxiety, depression, other negative emotions [3–6], as well as antisocial behavior [7], psychological disorders [8] and interpersonal distress [9,10]. Moreover, father absence can even influence the development of key personality traits in individuals [11,12]. Moreover, during the process of personality development, certain prosocial qualities like gratitude and forgiveness play a crucial role in socialization [13]. Consequently, this study aims to investigate the relationship between father absence and gratitude and forgiveness, as well as the mediating mechanism of resilience. Exploring this issue will contribute to a clearer understanding of the pivotal role fathers play in nurturing prosocial qualities.



Gratitude is widely acknowledged as a virtuous trait [14] characterized by individuals expressing appreciation for others' assistance and engaging in spontaneous acts of altruism [15]. Prosocial behavior heavily relies on gratitude [16], as it not only strengthens interpersonal bonds but also enriches the quality of social relationships [17]. Previous research has extensively examined the determinants of gratitude, primarily from the perspective of interactions and relationships. For example, Wu et al. [18] demonstrated that a positive parent-child relationship significantly predicts the development of gratitude. Additionally, studies have highlighted the significant benefits of family-centered parenting styles, particularly those emphasizing emotional warmth, in fostering gratitude, while negative parenting styles such as parental rejection have been found to hinder its development [19]. Hence, both the parent-child relationship and parenting styles reflect parental attitudes, and the quality of parental care emerges as a crucial factor in gratitude formation. However, existing studies have predominantly focused on the impact of maternal care, paying scant attention to the influence of paternal affection. Addressing this research gap, the present study aims to investigate the effect of father absence on the formation of gratitude.

Furthermore, an extensive body of research has established the significant influence of family relationships, specifically the parent-child relationship and parenting styles, on the development of forgiveness. Forgiveness entails the voluntary demonstration of empathy by victims towards aggressors following harm, wherein they refrain from hostility and instead exhibit acts of kindness [20]. Notably, the quality of the parent-child relationship has been found to have a direct correlation with higher levels of forgiveness among adolescents, as demonstrated by Christensen et al. [21]. Additionally, Wang et al. [22] discovered that children raised by parents utilizing democratic parenting styles display a more pronounced tendency towards forgiveness. In light of these findings, our study aims to investigate the causal mechanism between father absence and two fundamental personality traits: gratitude and forgiveness. Accordingly, we posit Hypothesis 1: father absence predicts decreased levels of gratitude and forgiveness.

Resilience refers to an individual's capacity to endure and adapt to significant disruptions while exhibiting minimal negative behavior [23]. The resilience framework posits that the ability of "high-risk" children facing prolonged adversity to adapt to challenging environments or stressors depends on both external pressure or challenge and their internal resilience [24]. Empirical investigations have shown that resilience can effectively mitigate the impact of adverse childhood experiences on negative emotions and behaviors. For instance, previous studies have demonstrated that resilience can alleviate the detrimental effects of childhood emotional abuse and family dysfunction on anxiety and depression [25–28]. Furthermore, resilience can serve as a mediator to suppress the adverse impact of childhood abuse on aggression [29]. Additionally, resilience can inhibit the unfavorable effects of challenging environments on the development of an individual's personality traits. For instance, Friberg et al. [30] found that resilience predicts the

development of personality traits such as extroversion and responsibility in the face of adversity. Considering that father absence constitutes a crucial aspect of an unfavorable early-life environment, we propose Hypothesis 2: enhancing the resilience of individuals experiencing father absence may bolster their gratitude and forgiveness.

In conclusion, the present study seeks to explore the relationship between father absence and gratitude, as well as forgiveness, while considering the mediating role of resilience, drawing upon the theoretical framework explicated earlier. Our specific hypothesis posits that father absence will be directly and indirectly associated with decreased levels of gratitude and forgiveness, with resilience serving as a mediating mechanism.

Method

Participants

In this study, 1951 adolescents from several primary and secondary schools in Central China were selected using cluster sampling methodology. The sample consisted of 669 primary school students, 723 junior high school students and 559 senior high school students. There were 995 males and 956 female participants, with an average age of 12.93 ± 2.54 years (range, 8–19 years). All participants were free from any physical or psychological illnesses and provided written informed consent before completing the questionnaires. Detailed instructions were provided to the participants, who completed all the questionnaires within approximately 40 min. As a token of appreciation for their participation, all participants received a compensation of ¥30. The present study received ethical approval from the Academic Committee of the School of Psychology of Hunan Normal University (Grant Number: 2021051; Grant date: 2023.3.5).

Measures

The present study employed questionnaires consisting of 4 sub-questionnaires: the Father Absence Questionnaire, the Connor–Davidson Resilience Scale, the Gratitude Questionnaire–6 and the Tendency to Forgive Scale.

Revision of the father absence questionnaire (FAQ)

The 27-item Revised of the Father Absence Questionnaire (FAQ) was employed to assess the construct of father absence [31,32]. The questionnaire comprises of seven subscales designed to evaluate diverse aspects, including individuals' sentiments towards their fathers, mother's relationship with her own father, the dynamics between the father and mother and so on. Each item was scored on a Likert 5-point scale, providing a range of response options. Prior research has established the scale's reliability and validity within the Chinese population. Within the context of our study, the FAQ exhibited a notably high level of internal consistency, as indicated by a Cronbach's alpha coefficient of 0.911.

Connor–Davidson resilience scale (CD-RISC)

The level of resilience was measured using the the 10-item Connor–Davidson Resilience Scale (CD-RISC) [33,34]. The

CD-RISC is a well-established instrument designed to assess an individual's resilience. One example item from the scale includes the statement "able to cope with anything". Participants responded to each item on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores on the scale indicate a greater level of resilience. The reliability and validity of the CD-RISC have been established within the Chinese population. In our study, the CD-RISC demonstrated a high level of internal consistency, as evidenced by a Cronbach's alpha coefficient of 0.880.

Gratitude questionnaire-6 (GQ-6)

The level of gratitude was assessed using the 6-item Gratitude Questionnaire-6 (GQ-6) [35,36]. The GQ-6 is a validated instrument employed to measure gratitude. Participants responded to each item on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Notably, the third and sixth items were reverse-scored. Higher scores indicate a greater level of gratitude. The validity and reliability of this version of the GQ-6 have been demonstrated in previous studies conducted with Chinese samples [37,38]. In our study, the GQ-6 exhibited acceptable internal consistency with a Cronbach's alpha coefficient of 0.684.

Tendency to forgive scale (TTF)

In this study, forgiveness was assessed using the Chinese version of the Tendency to Forgive Scale (TTF), which underwent a rigorous translation process following the standard forward-and-back translation approach [39]. The TTF scale has been widely utilized in prior studies conducted among Chinese populations [40,41], demonstrating robust levels of reliability and validity [39]. To measure the level of forgiveness, we employed the 4-item TTF, with one example item being "my approach is just to forgive and forget when people wrong me" [42]. Participants responded to each item on a 7-point Likert scale, ranging from 1 (indicating strong disagreement) to 7 (indicating strongly agreement). Notably, the second item was scored in reverse. Higher scores on the TTF indicate a greater degree of forgiveness. In our study, the TTF exhibited acceptable internal consistency, as demonstrated by a Cronbach's alpha coefficient of 0.729.

Statistical analysis

Firstly, a Harman single factor test was conducted followed by confirmatory factor analysis to assess the data for potential common method deviation. To evaluate the goodness of fit,

the standardized root-mean-square residual (SRMR), root-mean-square error of approximation (RMSEA) and comparative fit index (CFI) were selected as indicators for the model [43]. Secondly, Amos 26.0 was utilized to construct a measurement model. Using the project construction balance method, father absence was divided into two dimensions, resilience into three dimensions, gratitude into six dimensions, and forgiveness into four dimensions as indicators of influencing factors. If the measurement model demonstrated good fit, a structural equation model was planned for construction. Subsequently, the mediating effect of resilience between father absence and gratitude and forgiveness was examined using the bootstrap method. Finally, the data was into male and female groups to assess the stability of the structural model across genders.

Results

Measurement model verification

Four key variables, namely father absence, resilience, gratitude, and forgiveness, were incorporated into our comprehensive measurement model. The results revealed a favorable fit of the data to the measurement model [$\chi^2_{(82,1951)} = 722.521, p < 0.001$; RMSEA = 0.063; SRMR = 0.057; CFI = 0.944], signifying the model's suitability for the data. Additionally, all potential variables demonstrated significant and substantial factor loading ($p < 0.001$), indicating that the selected variables effectively represented the observed variables. Detailed information on the average, standard deviation, and correlations of father absence, resilience, gratitude, and forgiveness, along with the intercorrelations between these variables, are presented in Table 1. Notably, significant correlations were observed among the main variables, aligning with theoretical expectations and providing initial support for the research hypotheses.

Structural model

First, father absence significantly and directly predicted gratitude and forgiveness without considering the mediating role of resilience. Subsequently, Model 1 was established, encompassing direct paths from father absence to gratitude and forgiveness, as well as indirect paths mediated by resilience (see Fig. 1). The results showed that Model 1 exhibited superior fit compared to alternative models [$\chi^2_{(82,1951)} = 722.521, p < 0.001$; RMSEA = 0.063; SRMR = 0.0574; CFI = 0.944] (see Table 2). Consequently, Model 1 was selected as the final structural model.

TABLE 1

Descriptive statistics and zero-order correlations for all variables

Variables	M	SD	1	2	3	4
1. Father absence	32.28	19.14	1.00			
2. Resilience	48.71	11.75	-0.379***	1.00		
3. Gratitude	32.36	5.86	-0.389***	0.466***	1.00	
4. Forgiveness	17.07	5.52	-0.286***	0.530***	0.371***	1.00

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

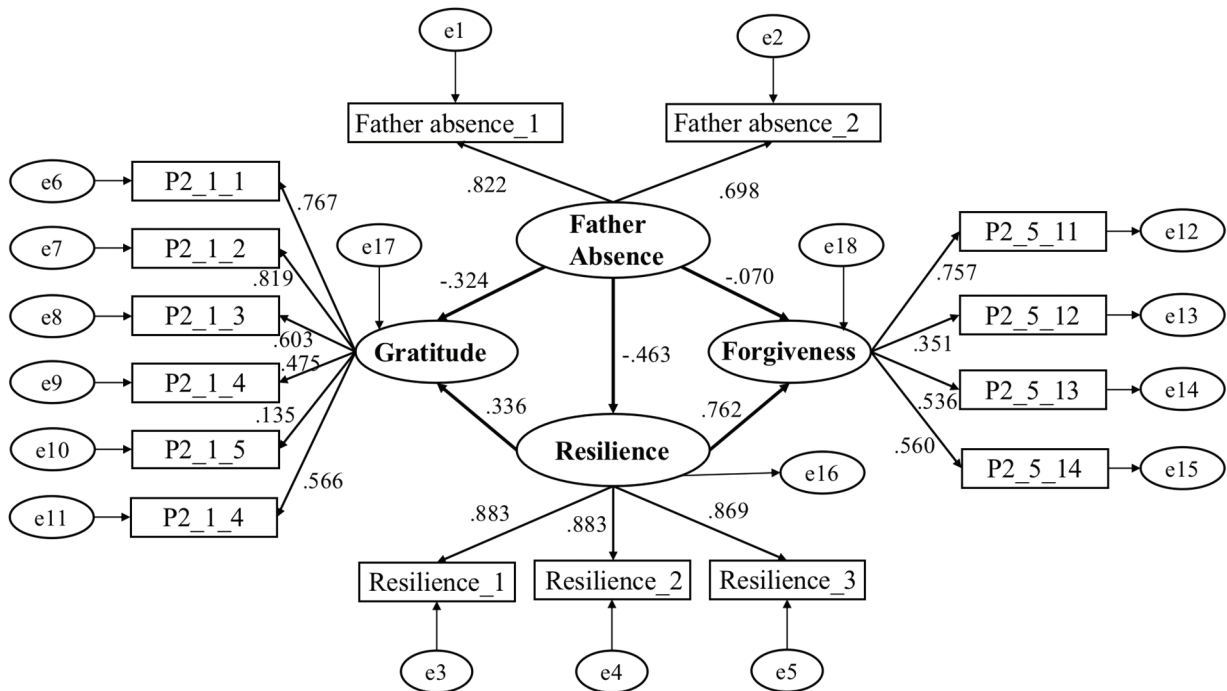


FIGURE 1. The structural model of father absence, resilience, gratitude and forgiveness (N = 1951).

TABLE 2

Fit indices among competing models

	χ^2	df	CFI	RMSEA	SRMR	AIC	ECVI
Model 1	722.521	82	0.944	0.063	0.057	798.521	0.409

Notes: CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; AIC = Akaike information criterion; ECVI = expected cross-validation index.

Test of the Mediation Model

In addition, the mediating effect of resilience between father absence and gratitude, as well as father absence and forgiveness in Model 1, was examined using the bootstrap method. A total of 2000 bootstrap samples were randomly selected from the original dataset (N = 1951). The results indicated that, at the 95% confidence interval, exhibited a significant indirect effect in the relationship between father absence and gratitude [-0.186, -0.126], as well as between father absence and forgiveness [-0.401, -0.298] (see Table 3).

Gender differences

Furthermore, the stability of the model was assessed across genders. Initially, gender differences in the four latent variables were examined. The results showed that there were no significant gender differences in father absence [$t_{(1951)} = -1.915, p > 0.05$], gratitude [$t_{(1951)} = -0.820, p > 0.05$] and

forgiveness [$t_{(1951)} = 1.586, p > 0.05$]. However, a significant gender difference was observed in resilience [$t_{(1951)} = 5.695, p < 0.05$], with males exhibiting higher scores compared to females.

To assess the stability of the model across genders, a multi-group analysis was conducted in accordance with Byrne's [44] recommendations. Two models were established, with basic parameters including factor load, error variance, and structural covariance unchanged. In one model, unconstrained structural paths were freely assessed for cross-gender analysis, while the other model imposed constrained structural path coefficients to be equal across genders. The results indicated significant differences between the two models [$\chi^2 = 33.893, p < 0.001$]. However, both models demonstrated satisfactory fitness indices, meeting the standard criteria (see Table 4). To further investigate the cross-gender stability of the structural model, the critical

TABLE 3

Standardized indirect effects and 95% confidence intervals

	Estimate	Lower	Upper
FA → Resilience → Gratitude	-0.156	-0.186	-0.126
FA → Resilience → Forgiveness	-0.353	-0.401	-0.298

Note: FA = Father Absence.

TABLE 4

Comparison of constrained and unconstrained structural path models for transgender

	χ^2	<i>df</i>	CFI	RMSEA	SRMR	AIC	ECVI
Unconstrained	813.407	164	0.943	0.045	0.055	965.407	0.495
Constrained	847.300	175	0.941	0.044	0.062	977.300	0.501

Notes: CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean-square residual; AIC = Akaike information criterion; ECVI = expected cross-validation index.

ratio of differences (CRD) between the two models was employed as an index. Considering that χ^2 can be impacted by large sample sizes, the absolute value of CRD greater than 1.96 was used to determine statistically significant differences [45]. The results indicated no significant differences in the structural paths of all variables (CRD_{father absence→resilience} = -0.160, CRD_{father absence→gratitude} = 0.563, CRD_{father absence→forgiveness} = 0.506, CRD_{resilience→gratitude} = -1.536, CRD_{resilience→forgiveness} = 1.226). Thus, it can be concluded that there were no significant differences in cross-gender comparisons between the two models, indicating cross-gender stability of the model.

Discussion

This study aimed to investigate the relationship between father absence and the prosocial qualities of gratitude and forgiveness, while also examining the mediating role of resilience integrating resilience theory for the first time. The findings of this study revealed a negative impact of father absence on the development of gratitude and forgiveness. In addition, the results indicated that father absence indirectly influenced gratitude and forgiveness through the mediating mechanism of resilience. In other words, enhancing the resilience of individuals who have experienced father absence may contribute to the improvement of their gratitude and forgiveness. These findings hold significant implications for interventions targeting the enhancement of prosocial qualities among individuals affected by father absence.

Firstly, the findings of this study provide support for Hypothesis 1, indicating that father absence has a negative predictive effect on gratitude and forgiveness. This suggests that individuals who have experienced father absence may exhibit lower levels of gratitude and forgiveness compared to those who have not experienced such absence. These results align with previous research and underscore the significant role of fathers in the development of individuals [46]. Adverse childhood experiences, including father absence, have been associated with impaired social development [47] and emotional development [48]. For instance, such experiences may lead to difficulties in emotion regularity [48] and impairing children's social-emotional function [49]. Father absence represents a prototypical adverse childhood experience [50] and can impose detrimental effect on the development of prosocial qualities [51]. Children growing up in father-absence environments often exhibit insecure attachment patterns [52,53], which can contribute to challenges in interpersonal

interaction [54] and an increased likelihood of displaying self-centered tendencies [55]. Consequently, developing the capacity for gratitude and forgiveness becomes more arduous. However, a nurturing environment can foster children's prosocial qualities [56], with fathers playing a pivotal role in establishing such an environment within the family context. Typically, children growing up in supportive family environments tend to experience greater care [57,58] and are more likely to extend this care towards others, displaying a propensity for empathy and considering others' perspectives [59]. Consequently, these individuals find it easier to cultivate gratitude and forgive others for their harmful behaviors. Furthermore, studies have demonstrated that father absence detrimentally affects individuals' moral development [60], while gratitude and forgiveness are hallmark moral qualities [61–63]. Hence, father absence can directly influence the development of gratitude and forgiveness.

Secondly, our findings provide empirical support for hypothesis 2, which suggests that resilience plays a pivotal role in mediating the relationship between father absence and gratitude as well as forgiveness. Prior research has emphasized the significance of a supportive environment for children in fostering resilience [64]. However, it is crucial to acknowledge that adverse experiences such as childhood trauma and insufficient parental care can impede the adaptive capacity of individuals, thus exerting a detrimental impact on their resilience [65]. In the case of individuals who experience father absence, they are exposed to a family environment characterized by loss, which hampers their ability to receive adequate care and educational support from their fathers, consequently impeding the fulfillment of their emotional needs [66]. Consequently, their physical and mental well-being may be compromised [67]. These negative consequences can further undermine their ability to navigate and cope with adversities, ultimately diminishing their level of resilience [68–71]. Conversely, our results showed that resilience can positively predict the two prosocial qualities—gratitude and forgiveness—thus reinforcing the concept of resilience [72]. This positive association could be attributed to the notion that individuals with high levels of resilience possess superior interpersonal skills and psychological adaptability [73], granting them an advantage in social interactions. Consequently, they are more likely to receive support and assistance from others [74]. This enhanced social support, in turn, prompts a greater willingness among these individuals to reciprocate the kindness extended by others [75,76] and exhibit forgiveness towards aggressive behaviors directed at them

[77]. Consequently, individuals with high resilience develop higher levels of gratitude and forgiveness [78]. In summary, our study underscores the role of resilience as a mediator between father absence and gratitude as well as forgiveness.

As the prevalence of single mother families continues to rise, it becomes increasingly crucial to comprehend the mechanisms through which father absence can detrimentally impact children's development. In light of this, our study aims to shed light on the relationship between father absence and two key prosocial qualities—gratitude and forgiveness—by examining the mediating role of resilience. Our findings unequivocally demonstrate that children raised in father-absent families exhibit lower levels of gratitude and forgiveness. Specifically, this study adopts a resilience theory framework to elucidate the influence of father absence on these qualities and the results confirm a substantial and negative correlation between father absence and both gratitude and forgiveness. However, it is worth noting that the magnitude of this effect is contingent upon the presence of resilience. This implies that although father absence may indeed hinder the development of gratitude and forgiveness, cultivating inner strength—resilience—plays a pivotal role in ensuring continued growth despite adversities.

This study also has some limitations. Firstly, cross-sectional study is not sufficient enough to establish a true cause and effect relationship. Secondly, employing self-report questionnaires introduces the potential for validity issues, as participants may be inclined to provide socially desirable responses rather than honest ones. Thirdly, this study relied on convenience sampling, which may introduce sampling bias and limit the generalizability of the findings. To address these limitations, it is advisable to incorporate longitudinal designs that can capture temporal associations. Additionally, a combined approach utilizing both cross-sectional and longitudinal methodologies could provide a more comprehensive understanding of the research topic. Furthermore, employing a more rigorous sampling strategy to ensure a representative sample would enhance the external validity of the findings.

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Availability of Data and Materials: The data used in this study is not publicly available due to confidentiality and legal restrictions. We do not have the right to openly release the data as it contains sensitive information and is subject to

privacy and ethical considerations. However, we would like to clarify that while we cannot openly share the data, we retain the right to use it for research purposes in accordance with the terms and conditions of our data access agreement. If there is a specific need for the data for purposes such as replication, further analysis, or verification of results, interested parties may contact the corresponding author to discuss the possibility of obtaining access to the data, subject to the necessary ethical and legal approvals. We are committed to upholding the principles of transparency and scientific rigor, and we will make every effort to facilitate access to the data within the constraints of the agreements and regulations governing its use. Please contact YanHui Xiang at xiangyh@hunnu.edu.cn for inquiries regarding data access. We appreciate your understanding of the limitations related to data availability in this study and thank you for your interest in our research.

Ethics Approval: This study involved human subjects and was conducted in accordance with ethical standards and guidelines. The present study was approved by the Academic Committee of Hunan Normal University. All participants provided written informed consent before completing the questionnaires and were paid after completing the whole questionnaires (Grant Number: 2021051; Grant Date: 2023.3.5).

Conflicts of Interest: The authors declare no conflicts of interest to report regarding the present study.

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