The Mediating Role of Psychological Capital in the Relationship between Insecure Attachment and Subjective Well-being of Chinese Left-behind Children

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Abstract: *The rising number of left-behind children in China, particularly in rural areas, underscores the urgent need to understand the complex interplay between insecure attachment and subjective well-being among this vulnerable population. The absence of one or both parents during their developmental years exposes these children to unique familial dynamics, contributing to unmet emotional needs and compromised parent-child relationships. Insecure attachment patterns often emerge as a consequence, further exacerbating the risk of mental health challenges. This study employs regression analysis and difference analysis to investigate the relationship between insecure attachment and subjective well-being among left-behind children, with psychological capital as a mediating variable. By elucidating the mechanisms underlying these associations, this research aims to inform targeted intervention strategies tailored to the needs of left-behind children.*

The findings underscore the multifaceted nature of subjective well-being in this population, emphasizing the importance of comprehensive interventions that address social, emotional, and psychological needs within familial and peer contexts. By fostering supportive relationships, enhancing emotional resilience, and promoting positive coping strategies, interventions can mitigate the adverse effects of parental migration on the well-being of left-behind children. While this study contributes valuable insights, future research should consider incorporating mixed-method approaches to capture the nuanced experiences and perceptions of left-behind children, thereby enhancing the validity and comprehensiveness of findings.

Keywords: Left-behind children, Insecure attachment, Subjective well-being, Psychological capital, Mental health.

1. Introduction

Based on data from China's seventh national census, the projected number of left-behind children in China in 2020 stands at 66.93 million, with a significant portion, approximately 41.77 million, residing in rural areas. These children experience a unique familial structure where one or both parents are absent during their formative years, leading to unmet emotional and psychological needs, weakened parent-child relationships, and an increased likelihood of developing insecure attachment patterns (Shi, Jiang, & Fan, 2023). Numerous studies have highlighted the detrimental impact of insecure attachment on the mental health of adolescents and children. However, the precise mechanisms through which insecure attachment influences mental health remain elusive. Additionally, existing research on insecure attachment and mental health predominantly focuses on urban and college-going populations, neglecting the distinctive challenges faced by left-behind children within their specific family and social contexts.

Psychological capital, originally conceptualized within organizational behavior research, has recently garnered attention in adolescent mental health studies, often serving as a mediating factor influencing mental well-being (Hao, 2023). Therefore, this study employs regression analysis, difference analysis, and other methodologies to explore the interplay between insecure attachment and subjective well-being (a measure of overall mental health) among left-behind children, with psychological capital serving as a potential mediating variable. Through this investigation, a deeper understanding of the complex dynamics shaping the mental health outcomes of left-behind children can be achieved, providing valuable insights for intervention and support strategies tailored to this vulnerable population.

2. Theoretical Framework

This study is guided by two key theoretical frameworks: Attachment Theory and Positive Psychology.
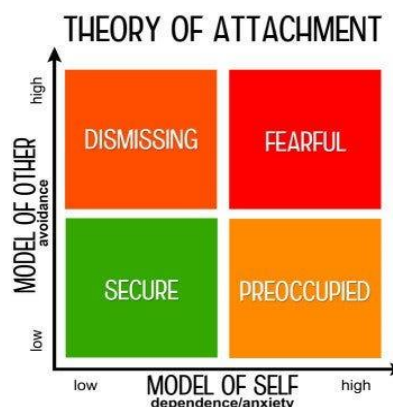

Figure 1: Theory of Attachment (Bernard, 2019)

John Bowlby's attachment theory posits that the behavior of a child is dependent on the attachment they have with the mother, and this affects their future relationships. Secure attachment forms when the caregivers are always responsive and available to the infant and provide emotional and physical nurturing. This helps in building trust and security as well as boosting the confidence of the child. The insecure attachment patterns develop in the presence of inconsistent or rejecting parents. These styles of anxious-preoccupied, dismissive - avoidant, and fearful-avoidant attachments are associated

with problems in relationships, emotion regulation and self-esteem (Mcleod, 2024).
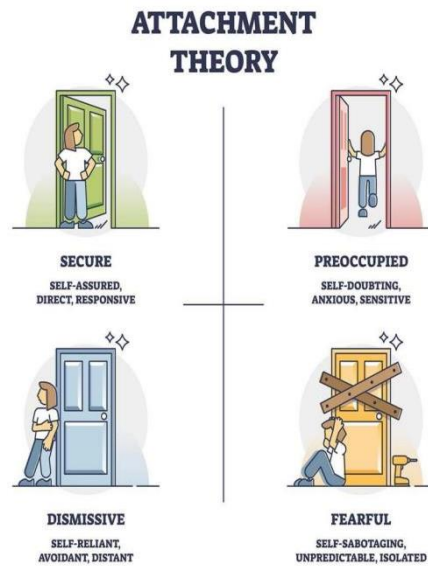
Figure 2: Attachment Theory (Mcleod, 2024).

In the case of left-behind children, attachment theory is particularly useful. Parental migration means that children are not receiving continuous and intense parental care. This can result in insecure attachment styles, which hampers their emotional health. Researches have also revealed that insecure attachment also leads to child mental illnesses like depression, anxiety and social withdrawal. Hence, knowledge about insecure attachment styles among left-behind children and its association with SWB contributes to the enhanced understanding of their difficulties (Hao & Cui, 2007). Positive psychology, on the other hand, is concerned with human strengths and positive processes. One of the primary aspects within this framework is psychological capital, defined as positive psychological resources that an individual has that help in succeeding in challenging situations. These resources encompass four key components: hope, optimism, self-efficacy, and resilience. Positive thinking is the attitude towards situations and further actions with the assumption of success despite failures (Hao & Cui, 2007).

Hope is a positive expectation for success and the attitude that one can accomplish desired outcomes.

- Self-efficacy is defined as an individual's belief in their ability to manage challenges and tasks.
- The concept of resilience refers to the ability to recover from stressful situations and overcome challenges.

The influence of high psychological capital on subjective well-being and work and personal life domain involvement and motivation is significant. This framework is particularly helpful with reference to the conceptualization of left-behind children because it implies that such children, though exposed to the precariousness of insecure attachment, may nonetheless marshal psychological resources to promote thriving (UOPositivePsych, 2024). Through investigating the mediating effect of psychological capital, the present study aims to examine whether these positive resources can play a compensatory role in mitigating the adverse impact of insecure attachment on SWB among left-behind children.

3. Literature Review

3.1 Left-behind Children

3.1.1 Status Quo and Trends

China has been experiencing rapid economic growth, which has led to internal migration, where millions of parents have migrated from rural areas to urban areas in search of better employment opportunities. This has led to the emergence of a unique social category - left-behind children.

Abandoned children are categorized as those who are left behind in their rural residences as one or both parents look for work in urban areas. This separation can be due to various reasons, such as a lack of employment opportunities in rural areas, a wish to earn more in the cities, and the need to provide better education for the children. These children have guardians who may be grandparents, relatives, or friends and grow up in a family setup that is drastically unlike the nuclear family with two parents (Bowlby, 1969; Bretherton & Munholland, 2008).

This separation causes different problems for left-behind children. They rarely receive the emotional security and parental care, which is very important for their development. Also, they may have lesser access to quality education and health services as compared to their urban counterparts. All these factors lead to loneliness and social isolation and deteriorate quality of life (Chen, Zhang, & Chen, 2016).

Recent studies indicate that denial of children's basic needs can have adverse effects on their growth (Bernard, 2019). Research indicates that left-behind children are at risk for negative outcomes such as poorer school performance, conduct issues, and psychological problems, including depression and anxiety. They include such undesirable occurrences as the need to understand the particular issues of this population and the need to provide them with evidence-based interventions (You et al., 2020).

The Chinese government has nonetheless put several policies and measures in place to deal with the issue of left-behind children because of its seriousness. Such measures include the building of more education and health facilities in the rural areas and offering subsidies to families and the development of social security for the left-behind children. However, more research is needed in order to evaluate the efficiency of such interventions and to see to what degree the aforementioned interventions can be improved in order to help this high-risk group (Adshead, 2016).

3.2 Insecure Attachment

3.2.1 Introduction to Attachment Theory

Attachment theory by John Bowlby explains that the bond between the child and the mother determines relationships in life. Secure attachment is formed when the caregivers are always accountable and available and provide emotional and physical support. This helps the child to trust, feel secure, and be confident (Dykas & Cassidy, 2011).

3.2.2 Types of Attachment and Their Impact

There are several possible attachment styles that may emerge based on the quality of early caregiving experiences. Secure attachment as defined above results in positive effects such as healthy self-image, good social skills and ability to cope with stress. Insecure attachment styles, on the other hand, develop when caregivers are unpredictable, unresponsive, or even rejecting. These include anxious-preoccupied attachment, dismissive-avoidant attachment, and fearful-avoidant attachment (Sroufe, 2005).

3.3 Psychological Capital

Positive psychology became a branch of psychology that deals with the study of positive aspects of human functioning. It focuses on the role of positive emotions, optimism, and resilience in promoting mental health. Psychological capital is a positive psychological construct that describes psychological assets that enable an individual to flourish in adversity. These resources include four specific areas: Hope which refers to the ability to maintain a positive outlook and motivation in the face of adversity.

Another key component is Optimism which is a positive expectation for success and the belief in one's ability to achieve goals. Moreover, one of the essential elements is resilience. It is the ability to overcome difficulties and thrive in adverse situations (Scott et al., 2011). High psychological capital is associated with increased well-being, motivation, and involvement in various domains of life.

Numerous studies have demonstrated a positive correlation between psychological capital and positive mental health. People with high psychological resources are more capable of dealing with stress and difficulties. Also, High levels of hope, optimism, and self-efficacy are positively associated with higher levels of happiness and life satisfaction. Additionally, psychological capital contributes to the development of positive emotions and psychological health (Luthans et al., 2007). The development of psychological capital is emerging as another important approach to positive mental health.
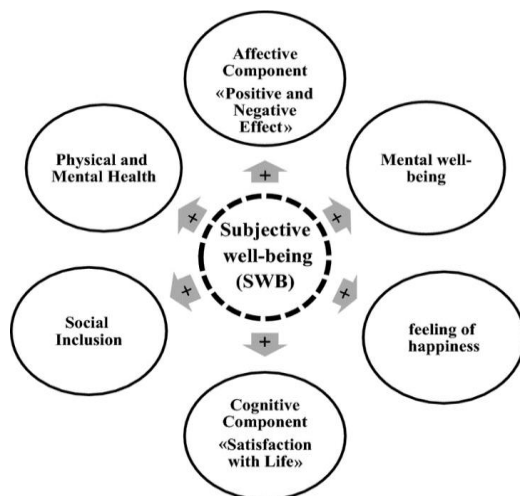
3.4 Subjective Well-being

Figure 3: SWB (Diener, 2000)

3.4.1 Definition and Components

Subjective well-being (SWB) is defined as an individual's assessment of his or her life satisfaction and happiness. Judgments about various aspects of life, including overall life satisfaction, satisfaction with specific domains (e.g., work or relationships), and having a sense of purpose in life, contribute to subjective well-being (Diener, 2000). Affective states refer to the frequency and intensity of positive and negative emotions experienced by an individual. Higher subjective well-being (SWB) is defined by the occurrence of positive effects such as joy, contentment, and love, while lower SWB is defined by the occurrence of negative effects such as sadness, anxiety, and anger (Sadeghi et al., 2022).

3.4.2 Importance of Subjective Well-being

SWB is an important measure of mental health and quality of life. There are numerous benefits of high levels of SWB. Research indicates that high SWB is correlated with enhanced immunity, reduced hypertension, and improved general health. Additionally, those with high SWB are likely to have better social ties, more participation in society, and positive perceptions of life. It is essential to identify the key determinants of subjective well-being (SWB) in order to achieve individual and societal welfare (Pace & Zappulla, 2011).

3.5 Critical Analysis

The reviewed literature on left-behind children in China is of great help but also has some gaps that need to be filled.

One major strength is the extensive literature that has documented the prevalence and description of this population. Chang et al. and Jia & Tian show the extent of the problem and the long-term effects of parental deprivation. Moreover, the use of attachment theory by researchers such as Wen et al. and He et al. provides straightforward explanations for children's emotional responses to separation. Moreover, the use of subjective well-being (SWB) as a mental health measure by Jia et al. enhances the comprehension of left-behind children's quality of life (Jia et al., 2016).

However, there are some limitations in the research methodologies. The use of self-reports for SWB, as in Jia et al., is prone to biases. Further, the focus on attachment styles, as highlighted by Wu et al., does not provide a comprehensive account of what contributes to well-being. In addition, the scarcity of longitudinal studies hinders the identification of causal connections between factors and outcomes (Wu et al., 2024).

There are conflicting views within the study. Although most works highlight the negative outcomes of insecure attachment Wen et al.; He et al. some urge for a more balanced view. Jingzhong & Lu also note that left-behind children have varying outcomes depending on their gender and rural-urban differences. Furthermore, there is a dearth of literature on psychological capital, which is a gap and, at the same time, an opportunity. Whereas Ge et al. advocate for attention to be paid to resilience, future research should explore the role of psychological capital in buffering insecure attachment against negative outcomes (Ge et al., 2023).

4. Methodology

4.1 Sampling

This study will use convenience sampling to conduct a questionnaire survey with Chinese left-behind children (middle school level and above, 13~17 years old) who may have a better perception of their current situation, as well as their higher level of knowledge, which enables them to complete the questionnaire more accurately and better. Based on the object of this study, the researchers distributed questionnaires through an online questionnaire platform. When distributing the questionnaires, they conducted a random sampling survey on relevant personnel and collected a total of 450 questionnaires. After deleting questionnaires with short response time and incomplete information, a total of 403 valid questionnaires were collected. These questionnaires are investigated and analyzed below.

4.2 Measurement Tools

4.2.1 Insecure Attachment

The Adolescent Attachment Questionnaire, AAQ, was chosen for this study to assess the level of insecure attachment in children left behind. This scale was originally developed by West et al. and was localized in China by Fan (2008; 2000). The AAQ consists of 9 items and is rated on a 5-point scale. The AAQ consists of 9 entries, with a five-point scale, where 1 represents "very much in line" and 5 represents "very much out of line". After reverse-scoring some of the items, the total score of the scale was calculated. After reversing the scores of some items, the total score of the scale was calculated, and the higher the total score, the higher the level of insecure attachment. The higher the total score, the higher the level of insecure attachment.

4.2.2 Psychological Capital

This study adopted the Psychological Capital Scale (PCQ-16) revised by Song and Mao (2012), which contains four dimensions: self-confidence, hope, resilience and optimism. It contains four dimensions: confidence, hope, resilience, and optimism, with a total of 16 items. A five-point scale was used, with 1 indicating "completely disagree" and 7 indicating "completely agree". The higher the total score, the higher the individual's psychological capital.

4.2.3 Subject Well-being

In this study, we used the Subjective Well-being Questionnaire (SHQ) developed by Diener (2000). This questionnaire combines the Life Satisfaction Questionnaire (LSQ), the Positive Emotions Questionnaire (PEQ) and the Negative Emotions Questionnaire (NEQ) to form a standardized measure of subjective well-being, which has been proven to have good cross-cultural reliability and validity in a large number of studies. The three subscales of the scale are 7-point scales. The Life Satisfaction Scale consists of 5 items, with 1,7 representing "Strongly Disagree" and "Strongly Agree" respectively. The Positive Emotions Scale consists of 6 items (positively scored) and the Negative

Emotions Scale consists of 8 items (negatively scored), which measure the frequency of experiencing positive and negative emotions in the last week.

4.3 Questionnaire Design and Statistics

This questionnaire survey is divided into two parts: the first part is basic information, including gender, age and other information; the second part is matrix scale questions. In order to facilitate calculation, each question in this part is assigned a 5-point system. Scoring instructions: Each question has 5 options and is scored from 1 to 5. In this study, data will be analyzed descriptively and tested for differences using SPSS 23.0. The study will use Mplus 8.3 for the mediation model and will test the significance of the mediation effect using the bias-corrected percentile Bootstrap method.

5. Result and Analysis

5.1 Basic Information and Study Validity Analysis

5.1.1 Basic information analysis

Table 1: Basic information situation

Name	Options	Frequency	Percentage (%)
1. whether you are a left-behind child	is	403	100.00
	No (end of questionnaire)	0	0
2. What is your gender?	female	192	47.64
	male	211	52.36
3. What is your age?	13.	81	20.10
	14	86	21.34
	15	79	19.60
	16	78	19.35
	17 years old	79	19.60
4. What is your education background?	Junior High School	236	58.56
	Above junior high school	167	41.44

The survey data indicates that all participants were left-behind children, with none selecting otherwise, leading to the conclusion that all respondents fall into this category. Gender distribution among participants reveals a slight majority of males, comprising 52.36% compared to 47.64% females. Regarding age distribution, the highest proportion is found among 14-year-olds, constituting 21.34% of participants, followed closely by 13 and 17-year-olds at 20.1% and 19.6% respectively. Conversely, 15 and 16-year-olds represent a lower proportion, at 19.6% and 19.35% respectively. Thus, 14-year-olds constitute the largest age group in the survey. In terms of education, 58.56% of respondents have completed junior high school, while 41.44% possess at least a junior high school education. Notably, the number of individuals with junior high school education surpasses those with education beyond this level.

5.1.2 Reliability and validity analysis

Reliability analysis assesses the dependability and precision of quantitative data, particularly responses to attitude scale questions. In this study, SPSS version 27 was utilized for conducting reliability and validity analyses on the questionnaire data. The reliability coefficient value stands at 0.989, surpassing the threshold of 0.9, indicating exceedingly high data reliability. Notably, the reliability coefficient doesn't exhibit a significant increase upon the deletion of any item, suggesting that no items should be removed.

Moving to the validity assessment, the Kaiser-Meyer-Olkin (KMO) value registers at 0.982, exceeding the 0.8 threshold required for factor analysis, thus affirming the data's suitability for such research. Furthermore, the data successfully passed the Bartlett sphericity test (p<0.05), affirming its appropriateness for factor analysis.

5.1.3 Exploratory factor analysis

Factor analysis serves as a method for condensing information, primarily focusing on identifying underlying relationships. In this study, factor analysis identified a total of 5 factors, each with eigenvalues exceeding 1. Post-rotation, these 5 factors accounted for variance explanation rates of 15.705%, 13.950%, 13.362%, 12.790%, and 12.243%, respectively, cumulatively explaining 68.050% of the variance. The evenly distributed variance explanation rates indicate the robustness of the factor analysis results.

Furthermore, the data underwent rotation using the varimax method to elucidate relationships between factors and research items. Results revealed commonality values above 0.4 for all research items, indicating strong correlations between items and factors, thus ensuring effective information extraction. Notably, Factor 1 corresponded to psychological capital, Factor 2 to adolescent attachment AAQ concerning interactions with close peers, Factor 3 to adolescent attachment AAQ regarding interactions with parents, Factor 4 to subjective well-being, and Factor 5 to feelings and behaviors in the past week of adolescent attachment AAQ, aligning with the questionnaire's original intent and demonstrating its sound structural validity.

5.2 Correlation Analysis between Subjective Well-being and Other Factors

Correlation analysis was employed to examine the relationship between subjective well-being and various factors, including interactions with parents and close peers, recent feelings and behaviors, and psychological capital. The strength of these correlations was measured using the Pearson correlation coefficient, as depicted in Table 2.

The correlation coefficient of 0.512 between subjective

Twell-being and interactions with parents suggests a moderate positive relationship. This indicates that individuals who report higher levels of subjective well-being tend to also report more positive interactions with their parents. These interactions could include emotional support, communication, and overall satisfaction with the parent-child relationship. Similarly, the correlation coefficient of 0.520 between subjective well-being and interactions with close peers indicates a slightly stronger positive relationship. This implies that individuals who experience greater subjective well-being also tend to have more positive interactions with their close peers. These interactions may involve support, companionship, and feelings of belonging within peer groups. Moving on to the correlation coefficient of 0.506 between subjective well-being and recent feelings and behaviors, it suggests a robust positive correlation. This indicates that individuals who report higher levels of subjective well-being also tend to have more positive recent emotional experiences and behaviors. Such experiences may include feelings of happiness, contentment, and engagement in positive behaviors. Lastly, the correlation coefficient of 0.514 between subjective well-being and psychological capital demonstrates a substantial positive correlation. This suggests that individuals with greater psychological capital, encompassing traits like resilience, self-efficacy, and optimism, also tend to experience higher levels of subjective well-being. This finding highlights the importance of positive psychological resources in contributing to overall well-being. The significance levels of 0.01 indicate that these correlations are highly unlikely to have occurred by chance alone, providing strong evidence for the observed relationships. Overall, these findings underscore the multifaceted nature of subjective well-being and its association with various interpersonal and intrapersonal factors.

5.3 Intermediate Regression Analysis

A mediation regression analysis was conducted with the situation between individuals and their parents, the situation between individuals and their close peers, and the feelings and behaviors in the past week as independent variables, psychological capital as a mediating variable, and subjective well-being as a dependent variable.

Table 2: Correlation Analysis

	The situation between individuals and parents	Personal situations with close peers	Feelings and behaviors during the past week	Psychological capital	Subjective well-being
Personal situation with parents	1				
Situations between individuals and close peers	0.656 * *	1			
Feelings and behaviors during the past week	0.616 * *	0.574 * *	1		
Psychological capital	0.683 * *	0.622 * *	0.599 * *	1	
Subjective well-being	0.512 * *	0.520 * *	0.506 * *	0.514 * *	1

* p<0.05 ** p<0.01

Table 3: Mediation effect analysis

	Subjective well-being					Psychological capital					Subjective well-being				
	B	Standard Error	T	P	Beta	B	Standard Error	T	P	Beta	B	Standard Error	T	P	Beta
Constant	1.044 * *	0.166	6.290	0.000	-	0.525 * *	0.141	3.729	0.000	-	0.955 * *	0.167	5.707	0.000	-
Personal and parental situation	0.196 * *	0.056	3.472	0.001	0.201	0.385 * *	0.048	8.044	0.000	0.389	0.130 *	0.060	2.164	0.031	0.134
Situation between individuals and close peers	0.249 * *	0.055	4.516	0.000	0.251	0.241 * *	0.047	5.159	0.000	0.240	0.208 * *	0.056	3.686	0.000	0.210
Feelings and behaviors during the past week	0.240 * *	0.054	4.461	0.000	0.238	0.227 * *	0.046	4.961	0.000	0.221	0.202 * *	0.055	3.669	0.000	0.200
Psychological capital											0.170 * *	0.058	2.908	0.004	0.172

	Subjective well-being					Psychological capital					Subjective well-being				
	B	Standard Error	T	P	Beta	B	Standard Error	T	P	Beta	B	Standard Error	T	P	Beta
R 2		0.354					0.548					0.367			
Adjust R 2		0.349					0.544					0.361			
F number	F (3,399) = 72.765, p=0.000					F (3,399) = 161.046, p=0.000					F (4,398) = 57.708, p=0.000				

* p<0.05 ** p<0.01

From the table above, we can see that the mediation effect analysis involves 3 models, as follows:

Model 1: Subjective well-being = 1.044 + 0.196 * situation between the individual and parents + 0.249 * situation between the individual and close peers + 0.240 * feelings and behaviors in the past week

Model 2: Psychological capital = 0.525 + 0.385 * situation between the individual and parents + 0.241 * situation between the individual and close peers + 0.227 * feelings and behaviors in the past week

Model 3: Subjective well-being = 0.955 + 0.130 * situation between the individual and parents + 0.208 * situation between the individual and close peers + 0.202 * feelings and behaviors in the past week + 0.170 * psychological capital

The mediation effect was tested, and the test results are summarized in the following table:

Table 4: Mediation effect test conclusion

item	c Total Effect	a	b	a*b Intermediate effect value	a*b (Boot SE)	a*b (z value)	a*b (p value)	a*b (95% BootCI)	c' Direct effect	Test conclusion
The situation between individual and parents => psychological capital => subjective well-being	0.196 **	0.385 **	0.170 *	0.065	0.022	2.994	0.003	0.027 ~ 0.111	0.130 *	Partial intermediation
Personal situation with close peers => Psychological capital => subjective well-being	0.249 **	0.241 **	0.170 *	0.041	0.016	2.563	0.010	0.013 ~ 0.077	0.208 **	Partial intermediation
Feelings and actions in the past week => Psychological capital => subjective well-being	0.240 **	0.227 **	0.170 *	0.039	0.014	2.694	0.007	0.013 ~ 0.070	0.202 **	Partial intermediation

* p<0.05 ** p<0.01
Type of bootstrap: Percentile bootstrap method

The table above illustrates significant mediating effects within the paths from interactions with parents, interactions with close peers, and recent feelings and behaviors to psychological capital, ultimately influencing subjective well-being. Examining the model, the equation linking these factors to subjective well-being is as follows:

Subjective well-being = 0.955 + 0.130 * interactions with parents + 0.208 * interactions with close peers + 0.202 * recent feelings and behaviors + 0.170 * psychological capital.

The model's R-square value of 0.367 indicates that interactions with parents, interactions with close peers, recent feelings and behaviors, and psychological capital collectively account for 36.7% of the variance in subjective well-being. Upon testing the model using the F-test (F=57.708, p=0.000<0.05), it was determined that at least one of the factors—interactions with parents, interactions with close companions, recent feelings and behaviors, or psychological capital—affects subjective well-being. Further analysis revealed no issues of multicollinearity, as all Variance Inflation Factor (VIF) values were below 5, indicating a lack of collinearity. Additionally, the Durbin-Watson (D-W) value around 2 suggests no autocorrelation within the model, affirming its robustness.

Specifically, the regression coefficient analysis reveals significant positive impacts on subjective well-being. Interactions with parents demonstrate a coefficient of 0.130 (t=2.164, p=0.031<0.05), interactions with close peers have a coefficient of 0.208 (t=3.686, p=0.000<0.01), recent feelings and behaviors exhibit a coefficient of 0.202 (t=3.669, p=0.000<0.01), and psychological capital shows a coefficient of 0.170 (t=2.908, p=0.004<0.01).

In summary, interactions with parents, interactions with close peers, recent feelings and behaviors, and psychological capital all significantly and positively impact subjective well-being.

5.4 Gender and Age Differences Analysis

Table 5: Difference analysis by gender

Analysis items	item	Sample size	Average	Standard deviation	F	P
Personal/parental situation	female	192	3.68	0.93		
	male	211	3.29	1.09	14.865	0.000 **
	Total	403	3.48	1.04		
Situations between individuals and close peers	female	192	3.59	0.96		
	male	211	3.36	1.06	4.919	0.027 *
	Total	403	3.47	1.02		
Feelings and actions during the past week	female	192	3.67	0.94		
	male	211	3.27	1.02	16.942	0.000 **
	Total	403	3.46	1.00		
Psychological capital	female	192	3.62	0.95	6.594	0.011 *
	male	211	3.36	1.08		

Analysis items	item	Sample size	Average	Standard deviation	F	P
	Total	403	3.49	1.03		
	female	192	3.69	0.97		
Subjective well-being	male	211	3.17	0.99	28.428	0.000 * *
	Total	403	3.42	1.01		

* p<0.05 ** p<0.01

Table 6: Differences analysis by age

Analysis item	item	Sample size	Average	Standard Deviation	F	P
	13 years old	81	2.56	0.84		
	14 years old	86	2.83	0.99		
Personal/parental situation	15	79	3.78	0.76	74.783	0.000 * *
	16	78	4.14	0.71		
	17	79	4.18	0.54		
	Total	403	3.48	1.04		
	13 years old	81	2.75	0.86		
	14 years old	86	3.05	1.01		
Situations between individuals and close peers	15	79	3.60	1.03	32.622	0.000 * *
	16	78	3.97	0.84		
	17	79	4.04	0.64		
	Total	403	3.47	1.02		
	13 years old	81	2.83	0.91		
	14 years old	86	3.04	0.97		
Feelings and actions during the past week	15	79	3.59	0.86	26.970	0.000 * *
	16	78	3.82	0.99		
	17 years old	79	4.05	0.70		
	Total	403	3.46	1.00		
	13	81	2.72	0.89		
	14 years old	86	3.13	0.99		
Psychological capital	15	79	3.59	1.00	33.525	0.000 * *
	16	78	3.99	0.91		
	17	79	4.07	0.62		
	Total	403	3.49	1.03		
	Age 13	81	2.40	0.58		
	14 years old	86	2.79	0.49		
Subjective well-being	15	79	3.50	0.76	129.764	0.000 * *
	16	78	4.05	0.75		
	17	79	4.44	0.74		
	Total	403	3.42	1.01		

* p<0.05 ** p<0.01

The utilization of one-way analysis of variance (ANOVA) in this section offers valuable insights into how gender and age impact various aspects of individuals' lives, including their interactions with parents and close peers, recent emotional experiences and behaviors, psychological capital, and subjective well-being.

When examining gender differences, statistically significant disparities surface at a 0.01 significance level in several key areas. Notably, females demonstrate markedly higher average scores than males across interactions with parents (F=14.865, p=0.000), interactions with close peers (F=4.919, p=0.027), recent feelings and behaviors (F=16.942, p=0.000), psychological capital (F=6.594, p=0.011), and subjective well-being (F=28.428, p=0.000). These findings suggest that females tend to report more positive experiences in their relationships, emotions, psychological resources, and overall well-being compared to males.

Similarly, age-related differences yield significant results at a 0.01 significance level across all measured factors. Older age groups consistently exhibit higher average scores than younger counterparts in interactions with parents (F=74.783, p=0.000), interactions with close peers (F=32.622, p=0.000), recent feelings and behaviors (F=26.970, p=0.000), psychological capital (F=33.525, p=0.000), and subjective well-being (F=129.764, p=0.000). These findings suggest that as individuals age, they tend to report more positive experiences in their relationships, emotional well-being,

psychological resources, and overall subjective well-being.

6. Discussion

The relationship between insecure attachment and subjective well-being among left-behind children in China is a complex interplay of various factors, as evidenced by the data analysis. Understanding this relationship is crucial for developing interventions and support systems tailored to the needs of this vulnerable demographic.

Firstly, the demographic profile of the participants provides important context. The predominance of left-behind children in the sample underscores the prevalence of this phenomenon in China, where many children are separated from their parents due to rural-to-urban migration for work. Additionally, the slight gender imbalance and age distribution indicate the diversity within the left-behind children population, with implications for how their experiences may differ.

The analysis reveals significant correlations between subjective well-being and various factors, notably interactions with parents and close peers, recent feelings and behaviors, and psychological capital. These findings align with existing research highlighting the importance of social support, emotional experiences, and psychological resilience in determining well-being outcomes. Specifically, positive interactions with parents and peers, along with robust psychological resources, are associated with higher levels of

subjective well-being among left-behind children. Examining gender differences, females consistently report higher levels of subjective well-being and related factors compared to males. This suggests potential gender-specific vulnerabilities or resilience mechanisms within the context of being left behind by migrant parents. Further exploration into the gender dynamics of attachment and well-being could provide insights into the nuanced experiences of left-behind girls and boys.

Age-related differences also emerge, indicating that older left-behind children tend to report more positive experiences across various domains. This trend suggests potential developmental changes in coping strategies, social relationships, and emotional regulation among left-behind children as they grow older. Understanding these age-related patterns can inform age-appropriate interventions and support services for left-behind children at different stages of development.

7. Conclusion

In conclusion, the findings underscore the multidimensional nature of subjective well-being among left-behind children in China. Addressing the challenges associated with insecure attachment requires holistic approaches that consider the social, emotional, and psychological needs of these children within their familial and peer contexts. By fostering supportive relationships, enhancing emotional resilience, and promoting positive coping strategies, interventions can mitigate the adverse effects of parental migration on the well-being of left-behind children. While this study provides valuable insights into the relationship between insecure attachment and subjective well-being among left-behind children in China, it is important to acknowledge its limitations and suggest avenues for future research. One important limitation is the reliance on self-report measures, which may be subject to biases and inaccuracies, particularly among younger participants or those with limited literacy. Future studies could incorporate mixed-method approaches, combining quantitative surveys with qualitative interviews or observations to gain a more comprehensive understanding of the experiences and perceptions of left-behind children.

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