

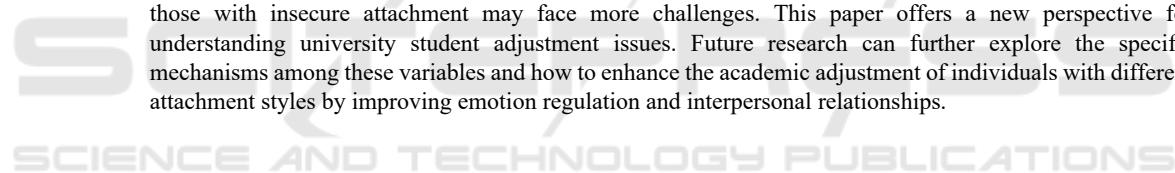
Review on the Relationship Between Adult Attachment and University Student Adjustment: The Mediating Roles of Emotion Regulation and Interpersonal Relationships

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Abstract: The adaptability of university students has become a focus of attention. The theory of adult attachment provides structured approach for comprehending individuals' behavioral patterns in intimate relationships and their subsequent developmental impacts. This paper analyzes the relationship between adult attachment and university student adjustment and delves into the mediating roles of emotion regulation and interpersonal relationships between the two. Research shows that adult attachment styles not only reflect individuals' early interaction experiences with primary caregivers but also profoundly influence their adjustment processes in the university environment. Emotion regulation serves as a crucial bridge connecting adult attachment to adjustment outcomes, with different attachment styles potentially leading individuals to adopt different emotion regulation strategies. Meanwhile, interpersonal relationships, as a vital component of social adjustment, are also significantly influenced by adult attachment styles. Individuals with secure attachment tend to perform better in academic adjustment, emotion regulation, and interpersonal relationships, while those with insecure attachment may face more challenges. This paper offers a new perspective for understanding university student adjustment issues. Future research can further explore the specific mechanisms among these variables and how to enhance the academic adjustment of individuals with different attachment styles by improving emotion regulation and interpersonal relationships.



1 INTRODUCTION

According to the Video Conference on Employment and Entrepreneurship of National Ordinary College Graduates in 2024, the number of graduates in the 2024 academic year is expected to reach 11.79 million. As a crucial group about to step into society, university students' adaptability is not only related to their academic achievements and mental health but also directly affects their future career development and social integration. As one of the important theories in psychology, adult attachment theory provides a powerful framework for understanding individuals' behavioral patterns in intimate relationships and their subsequent developmental impacts. Especially among university students, adult attachment styles not only reflect their early interaction experiences with primary caregivers but also profoundly influence their adjustment processes in the university environment.

In recent years, an expanding body of research has turned its focus towards examining the connection

between adult attachment and the adjustment of university students, delving into the underlying mediating mechanisms at play. Emotion regulation (ER), defined as an individual's capacity to manage and modulate their emotional states has emerged as a key aspect in this investigation. is regarded as an important bridge connecting adult attachment to adjustment outcomes (Bowlby, 1980, Hazan & Shaver, 1987). Different attachment styles may lead individuals to adopt different emotion regulation strategies, further influencing their mental health and social functioning. Meanwhile, interpersonal relationships, as a vital component of university students' social adjustment, are also significantly influenced by adult attachment styles (Baumeister & Leary, 1995). Good interpersonal relationships can promote the establishment of individuals' social support networks, while poor interpersonal relationships may exacerbate feelings of loneliness and social anxiety.

Therefore, this paper aims to review the relationship between adult attachment and university

student adjustment, and delve into the mediating roles of emotion regulation and interpersonal relationships between the two. By sorting through previous research findings and starting from the related concepts and theoretical backgrounds of adult attachment, ER, interpersonal relationships, and university student adjustment, this paper analyzes the relationships among these variables in detail. This review will provide new perspectives and directions for future research on understanding university student adjustment issues.

2 THE RELATIONSHIP BETWEEN ADULT ATTACHMENT AND ACADEMIC ADAPTATION: THE MEDIATING ROLE OF ER

Learning is a process for university students to train skills and lay a solid foundation for their future careers. Academic adaptation is the primary task throughout their university life, referring to the behavioral process in which students strive to adjust, enrich, and develop themselves according to the academic environment and needs, thereby achieving a balance with the learning environment (Feng et al., 2010). At the individual level, numerous factors can contribute to students' difficulties in adapting to university life, such as leaving their hometowns, increased academic demands, personal responsibilities, and previous academic performance (Gerdes & Mallinckrodt, 1994). Among the various factors influencing international students' adaptation to university life, attachment, as an important psychological characteristic, has a profound impact on individuals' adaptation process. Attachment is a crucial social relationship during infancy, directly influencing infants' social behavior, personality traits, and attitudes when interacting with others (Bowlby, 1998). According to attachment theory, infants establish psychological models of the self, caregivers, and intimate relationships through interactions with caregivers. These models are relatively stable and can guide and predict individuals' behavior in intimate relationships in adulthood. Recently, attachment theory has been extended beyond early life development and intimate relationships (such as with parents and partners) to include broader adult relationships, such as those with friends and colleagues (Cassidy & Shaver, 2008). Currently, the measurement of attachment primarily adopts a two-dimensional model (Mikulincer & Shaver, 2003,

Ravitz et al., 2010). One dimension is attachment anxiety, referring to the self-model, which describes individuals' expectations of being abandoned or unloved. Individuals with high attachment anxiety fear separation from their loved ones and exhibit high levels of attachment behavior; the other dimension is attachment avoidance, referring to the other-model, characterized by a reluctance to depend on others. Individuals with high attachment avoidance prefer self-reliance, avoid intimate relationships, and exhibit almost no attachment behavior. Theoretically, individuals with secure attachment (low attachment anxiety, low attachment avoidance) hold optimistic beliefs when facing stress, appropriately express their pain, and seek help from others, as their internal security model helps them objectively evaluate their environment and adapt more flexibly (Mikulincer & Florian, 1995). Bowlby believed that individuals with better attachment qualities are more confident and able to be close to and trust others.

Xie Anna et al conducted a questionnaire survey among 874 first-year students at four comprehensive universities in Beijing to investigate the relationship between school adaptability and adult attachment among first-year university students. Using the University Adaptation Scale and the Revised Version of the Intimate Relationships Questionnaire, the results of descriptive statistical analysis showed that individuals with secure attachment had significantly better school adaptability than those with three insecure attachment types. Attachment anxiety and avoidance negatively predicted school adaptability, with individuals with secure attachment showing the best adaptability. High attachment anxiety and high attachment avoidance traits were detrimental to the development of academic adaptation among university students (Xie & Yang, 2015).

University students are at a turning point in social role changes. Changes in the campus environment, increased academic pressure, interpersonal interactions, and employment pressure are all factors that may cause emotional distress, thereby affecting university adaptation. ER involves two strategies: cognitive reappraisal and expression suppression. A series of studies have confirmed that ER is beneficial for reducing negative emotional experiences such as depression and anxiety and promoting balance between work and family life. However, there are significant differences in the timing, methods, and aftereffects of these two ER strategies. Cognitive reappraisal primarily involves changing individuals' cognition and understanding negative emotional events in a more positive way, falling within the category of positive emotion regulation. Expression

suppression involves mobilizing individuals' self-control abilities to inhibit emotional behavior that is about to occur or is occurring, belonging to the category of negative emotion regulation. Additionally, the impact of adult attachment types on individuals' subjective well-being is partially mediated by their emotion regulation. Adult attachment directly influences individuals' processing and management of emotional information.

Yang et al. conducted a survey among a randomly selected group of 120 university students to explore the association between adult attachment types and emotion regulation (ER) strategies among this population. Their findings revealed a notable correlation between the types of adult attachment and the ER strategies employed. Specifically, Pearson's product-moment correlation analysis indicated a significant and inverse relationship between attachment avoidance and cognitive reappraisal. In terms of correlation strength, cognitive reappraisal was more closely related to attachment anxiety, while expression suppression was more closely related to attachment avoidance. Specifically, university students with attachment avoidance were more likely to use expression suppression strategies ($t = -9.350$, $P < 0.01$), and those with attachment anxiety were more likely to use cognitive reappraisal strategies ($t = 2.644$, $P < 0.01$)(Yang et al., 2016). Li Caina et al selected 642 university students from first to fourth year at three universities and used the Chinese College Student Adjustment Scale (CCSAS) to assess emotional adjustment, the Relationship Survey Questionnaire (RSQ) to examine attachment (selecting the three dimensions of attachment security, attachment anxiety, and attachment avoidance), and the Emotion Regulation Questionnaire (ERQ) to investigate emotion regulation (including four dimensions of positive emotion enhancement and diminution, as well as negative emotion enhancement and diminution) to study the emotional adjustment of university students and its relationship with attachment and ER. The results of multiple linear regression analysis examining the relationship between attachment and ER strategies showed that scores on the attachment security dimension positively predicted scores on the emotional adjustment dimension, indicating that individuals with secure attachment and experiences of interacting with supportive attachment figures facilitate their good emotional adjustment status. Individuals with different attachment styles adopt different emotion regulation strategies, leading to varying emotional adjustment outcomes. Strategies employed by individuals with attachment avoidance

to suppress and conceal their emotions can result in adaptation crises(Dang & Wang, 2014). Li et al also used academic anxiety questionnaires, emotion regulation strategy questionnaires, and other survey methods to conduct a random sample survey of 540 students from a vocational school in Suzhou to study the influence mechanism of ER strategies on academic anxiety. Correlation analysis results showed that the cognitive reappraisal dimension of emotion regulation strategies was significantly negatively correlated with academic anxiety, while a notable positive association was observed between expression suppression and academic anxiety(Li et al., 2024). These results are consistent with previous related research findings, indicating that individuals who habitually use cognitive reappraisal strategies, whether guided or spontaneous, can effectively reduce negative emotional experiences. The expression suppression strategy can also regulate emotional responses to a certain extent.

3 THE RELATIONSHIP BETWEEN ADULT ATTACHMENT AND ACADEMIC ADAPTATION: THE MEDIATING ROLE OF INTERPERSONAL RELATIONSHIPS

Apart from emotional factors, interpersonal relationships may also play a mediating role between adult attachment and university adaptation. Individuals with secure attachment are generally able to establish stable, supportive, and trusting interpersonal relationships, which help them obtain emotional support and academic assistance in the learning environment, thereby enhancing academic adaptation(Feeney & Nolan, 1990). Conversely, individuals with anxious and avoidant attachment may exhibit more conflict and alienation in interpersonal relationships, leading to a lack of favorable support and assistance in the learning environment and subsequently affecting academic adaptation.

Bartholomew and Horowitz randomly selected incoming first-year students and required participants to find a close friend who had known them for at least six months, was not a romantic partner, and could provide their contact information. Each pair of friends was then tested twice, with both participants completing two sets of questionnaires — a self-

assessment questionnaire and an assessment questionnaire about their friend. This study examined the specific relationship between adult attachment and interpersonal problems, finding that fearful attachment was associated with introverted and compliant behavioral tendencies, while preoccupied attachment was associated with expressive behavioral tendencies. Dismissive attachment exhibited more hostility, while individuals with secure attachment had lower overall interpersonal distress scores(Bartholomew & Horowitz, 1991). In stressful situations, individuals with high attachment avoidance have a negative attitude towards seeking help, tending to show greater interpersonal distance and believing that others cannot meet their emotional needs. Individuals with high attachment anxiety may lack confidence and determination to overcome difficulties when interacting with others, feeling greater pressure when adapting to stressful environments. That is, individuals with insecure attachment patterns are more inclined to social isolation or over-dependence, making it difficult for them to establish and maintain healthy interpersonal relationships, ultimately affecting the process of academic adaptation(Brennan et al., 1998). Similarly, Zhao's study investigated the status of attachment, coping styles, and interpersonal relationships among college students to explore the interrelationships among these three factors. Using college undergraduates as participants, the study employed the Experiences in Close Relationships Inventory, Coping Style Questionnaire, and Interpersonal Relationship Comprehensive Diagnostic Scale to investigate the overall status of adult attachment, coping styles, and interpersonal relationships among college students. Utilizing the survey data, statistical comparisons were performed on demographic variables to identify significant differences. Correlation analyses were conducted to examine the relationships between adult attachment styles, coping strategies, and the variables under investigation. Interpersonal relationships were examined, and subsequent regression analyses were performed to assess the correlations. The present study investigates the prognostic influence of adult attachment patterns and distinct coping mechanisms on the quality and stability of interpersonal relationships. The findings indicate that a prevalent deficiency in the sense of responsibility exists among contemporary university students. Certainly, I'll rewrite the provided text in a scientific tone:Interactions within the college student population exert a notable influence on individual outcomes. Attachment anxiety, attachment avoidance, problem-solving efficacy, and self-blame

are critical factors that significantly influence interpersonal dynamics and psychological outcomes. Help-seeking behavior, fantastical thinking, avoidance strategies, and rationalization processes have been demonstrated to serve as effective predictors. Interpersonal relationships exert a significant influence on the daily routines and the concurrent physical and mental health progression of undergraduate students are intricately linked, hence. affecting their adaptation(Zhao, 2012). Mikulincer and Shaver's research indicated that individuals with anxious and avoidant attachment may exhibit more insecurity and avoidant behavior in interpersonal relationships, which may lead to a lack of confidence and motivation in the learning environment(Mikulincer & Shaver, 2007). Rosenfield and Subrahmanyam's study explored the impact of social media use on adult attachment and academic adaptation, finding that positive interactions on social media help enhance academic adaptation among individuals with secure attachment, while negative interactions may exacerbate academic difficulties among individuals with anxious and avoidant attachment(Rosenfield et al., 2016).

Lee et al assessed the quality of interpersonal relationships and found that good interpersonal relationships are related to the university adaptation of international students(Lee et al., 2004). Wang et al discovered in their research that international students in the United States who have more friends among American students or other international students tend to have better university adaptation(Wang et al., 2012). Individuals with different attachment styles have different impacts on interpersonal relationships, ultimately influencing their environmental adaptation. In the study by Du et al, 222 first-year Korean international students in China (114 males and 108 females) were investigated to explore the impact of adult attachment on university adaptation and further investigate interpersonal relationships. This study used the Experiences in Close Relationships Inventory, Interpersonal Relationship Scale, and University Student Adaptability Questionnaire for measurement. Descriptive statistics and correlation analysis of the data were conducted using SPSS 20. 0, and structural equation modeling analysis was performed using Amos 21. 0. The Pearson correlation analysis revealed a significant negative association between attachment avoidance and attachment anxiety and multiple dimensions of interpersonal relationships and university adaptation. Concurrently, a significant positive correlation was identified between interpersonal relationships and the various facets of university adaptation. This indicates

that lower levels of attachment avoidance and attachment anxiety lead to better interpersonal relationships and better university adaptation. Subsequent analyses suggest that reduced levels of attachment avoidance and attachment anxiety correlate positively with enhanced interpersonal relationships and a more successful adaptation to university life resampled with 1000 iterations to determine the 95% confidence interval for the mediating effect, thereby assessing its statistical significance. The test results demonstrated a significant mediating effect. The total effects of attachment avoidance and attachment anxiety on university adaptation were both significant ($B = -0.30, P < 0.01$; $B = -0.22, P < 0.01$), but their direct effects on university adaptation were not significant ($B = -0.10, P > 0.05$; $B = -0.08, P > 0.05$), suggesting that interpersonal relationships played a complete mediating role. Therefore, the findings of this study indicate that attachment avoidance among Korean international students not only directly and negatively predicts their adaptation to university life but also indirectly predicts their university adaptation through interpersonal relationships. Similarly, attachment anxiety not only directly and negatively predicts individual university adaptation but also indirectly predicts it through interpersonal relationships. Interpersonal relationships mediate between adult attachment and university adaptation(Du & Wang, 2024).

4 DISCUSSION

This paper has reviewed the relationship between adult attachment and university student adaptation, with a particular focus on the mediating roles of ER and interpersonal relationships between the two. The research findings indicate that adult attachment styles have a profound impact on the adaptation process of university students, with individuals exhibiting secure attachment demonstrating better adaptability in multiple aspects. This discovery emphasizes the influence of early interactions with primary caregivers on subsequent individual development and the crucial role of adult attachment styles in individual adaptation to new environments.

ER serves as a significant bridge connecting adult attachment and adaptation outcomes, with the choice and use of strategies having a notable impact on the individual's adaptation process. Individuals with secure attachment are more inclined to use positive ER strategies, such as cognitive reappraisal, which aids them in better coping with stress and challenges.

Conversely, those with insecure attachment may be more prone to using negative ER strategies, like expressive suppression, which may lead to more difficulties in the adaptation process. Therefore, improving individuals' ER abilities through education and training, particularly for those with insecure attachment, may help enhance their adaptation status.

Interpersonal relationships, as a vital component of social adaptation, are also significantly influenced by adult attachment styles. Individuals with secure attachment are generally able to establish stable, supportive, and trusting interpersonal relationships, which facilitate emotional support and academic assistance in the learning environment. In contrast, those with insecure attachment may exhibit more conflict and alienation in interpersonal relationships, leading to a lack of favorable support and assistance in the learning environment. Thus, enhancing academic adaptation among individuals with different attachment styles through improved interpersonal relationships is a direction worth exploring. Future research can further investigate how to improve university students' interpersonal relationships through activities such as psychological counseling and team-building, thereby enhancing their adaptation abilities.

Additionally, this study has identified some issues that require further exploration. For instance, although ER and interpersonal relationships mediate between adult attachment and adaptation, the influencing mechanism requires in-depth study. Meanwhile, other related factors, such as self-efficacy and coping styles, can also be considered within the research scope to more comprehensively address the issue of university student adaptation. Future research can adopt a longitudinal design to track the developmental changes of individuals with different attachment styles during their university years, providing a more comprehensive understanding of the relationships among these variables.

5 CONCLUSION

The majority of the studies above have confirmed that adult attachment styles have a significant impact on the adaptation process of university students, with ER and interpersonal relationships playing crucial mediating roles. Future research can further explore the specific mechanisms among these variables and seek effective intervention strategies to enhance academic adaptation among individuals with different attachment styles. Meanwhile, educators

and mental health professionals can also consider applying these research findings to educational practice to support the academic development and mental health of university students.

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