

Research on the Relationship Between Attachment Styles and Mental Health (Depression and Anxiety) among Chinese University Students

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Abstract: Mental health problems are becoming more serious globally. Relevant literature suggests that insecure attachment has the potential to lead to a range of mental health problems. And increasing attachment security can greatly improve psychological resilience and overall mental health. In this study, 103 Chinese university students were selected to investigate the relationship between their attachment styles and their mental health, especially depression and anxiety. A structured questionnaire based on the Experiences in Close Relationships Scale (ECR-R) was used to assess participants' attachment-related anxiety and avoidance, and the PHQ-9 and GAD-7 were used to assess mental health indicators. The findings reveal that significant differences in depression and anxiety levels between attachment types. Individuals with secure attachment styles exhibit significantly lower levels of depression and anxiety compared to those with insecure attachment styles, such as preoccupied, dismissive. In addition, attachment-related anxiety and avoidance scores could predict depression and anxiety levels. These results underscore the protective nature of secure attachment and highlight the importance of considering attachment styles in mental health interventions.

Keywords: Attachment styles, Mental health, Depression, Anxiety.

1. Introduction

Globally, mental health issues are becoming increasingly severe. According to a report from Harvard Medical School, approximately 46.4% of men and 53.1% of women will experience at least one mental health disorder in their lifetime, with depression and anxiety being the most common types. Data shows that the lifetime prevalence of depression is 20.1% for men and as high as 34.0% for women, while the lifetime prevalence of anxiety is 18.3% for men and 31.0% for women [1]. These statistics highlight the widespread nature of mental health issues and their challenge to public health, with depression and anxiety becoming critical factors affecting individual quality of life and social functioning.

In response to the causes of mental health problems, Attachment Theory, developed by Bowlby in 1979, provides a valuable framework for the causes of mental health problems. The theory explains how emotional bonds formed early in life with primary caregivers influence a person's emotional and psychological development throughout their life [2]. Also according to attachment

theory, attachment types are typically classified as secure, preoccupied, dismissive, and disorganized. These attachment types not only determine interpersonal relationship patterns in adulthood but are also closely linked to mental health.

Insecure attachment is closely related to the development of various mental disorders. This insecurity is considered a general vulnerability to psychological disorders, potentially leading to a range of mental health issues from mild negative emotions to severe personality disorders. Conversely, enhancing attachment security can significantly improve psychological resilience and overall mental health [3]. Palitsky et al. found that individuals with secure attachment generally exhibit higher emotional stability, particularly when facing depression and anxiety, where secure attachment serves a protective role [4]. Securely attached individuals are more effective in regulating emotions in stressful situations, thereby reducing the risk of anxiety and depression [3]. Similarly, research by Fraley et al. indicates that securely attached individuals tend to have greater trust and intimacy in relationships, which helps enhance their psychological resilience [5]. In contrast, insecure attachment types, including anxious, avoidant, and disorganized attachments, are closely associated with higher levels of depression and anxiety. Anxiously attached individuals, due to their insecurity in relationships, often experience strong anxiety and depressive emotions. They tend to exhibit excessive worry and dependence in close relationships, leading to emotional instability and mental health issues. Avoidantly attached individuals, on the other hand, tend to suppress or avoid emotions, making it difficult for them to seek support in emotional distress, thereby increasing the risk of mental health problems [6].

Moreover, Marazziti et al. administered the attachment type tests (ECR) to 126 patients with mental disorders and 126 healthy control subjects, and found that secure attachment predominated in the control group, whereas anxious attachment predominated among patients with anxiety and depression. This indicated significant differences in mental health outcomes among different attachment types [7]. Although the impact of attachment types on depression and anxiety has been widely studied across various cultural contexts, most existing research has focused on Western countries, often overlooking cross-cultural differences [8]. However, cultural background plays a significant role in shaping individual attachment styles and mental health, making it necessary to extend research to non-Western cultures.

In addition, Chinese university students, as a unique group, not only face academic and social pressures but also bear the additional psychological burden of entering the job market. Depression and anxiety levels among university students directly affect their academic performance, which may, in turn, impact their job prospects [9]. Therefore, this paper designed the attachment type survey and mental health assessment to evaluate the attachment types of Chinese university students and how these impact their mental health. Identifying and understanding the attachment types among Chinese university students and their effects on anxiety and depression is crucial for developing early intervention strategies. These strategies can help identify high-risk individuals early and provide targeted support, aiding students in achieving better mental health and social adaptation in both academic and professional settings.

This study aims to explore the application of a structured questionnaire on the relationship between attachment types and mental health among Chinese university students. It seeks to clarify how attachment types influence students' levels of anxiety and depression, and whether attachment types can effectively predict these mental health indicators. The study's hypothesis is based on the following expectations: different attachment types will show significant differences in mental health status, the null hypothesis will be rejected, and attachment types will effectively predict students' levels of anxiety and depression.

2. Methodology

2.1. Related work

In this study, three validated measurement tools were employed to assess participants' attachment styles, depression levels, and anxiety levels, ensuring a comprehensive understanding of the psychological constructs at play. The Experiences in Close Relationships-Revised (ECR-R) questionnaire was utilized to measure adult attachment styles, focusing specifically on the dimensions of attachment-related anxiety and attachment-related avoidance. This 36-item questionnaire required participants to respond using a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree) [5].

To evaluate depression levels, the Patient Health Questionnaire-9 (PHQ-9) was employed. The PHQ-9, a widely recognized and self-administered tool, consists of 9 items that participants rated on a 4-point Likert scale, ranging from 0 (not at all) to 3 (nearly every day). The total score, ranging from 0 to 27, provides a clear indication of the severity of depressive symptoms, with higher scores reflecting greater levels of depression [10]. Anxiety levels were measured using the Generalized Anxiety Disorder-7 (GAD-7) scale. It includes 7 items, each scored on a 4-point Likert scale from 0 (not at all) to 3 (nearly every day). The resulting total score, ranging from 0 to 21, indicates the severity of anxiety symptoms, with higher scores suggesting more severe anxiety [11].

2.2. Ethical Considerations

Before participating, all individuals were provided with a comprehensive information sheet outlining the study's objectives, procedures, and any potential risks and benefits. Informed consent was obtained from all participants, ensuring they understood their voluntary participation and their right to withdraw from the study at any time without penalty. To ensure the privacy and anonymity of participants' responses, we did not collect any identifying information, and all data were accessible only to the research team.

Furthermore, participants were informed that the study results would be used solely for research purposes. If participants had any questions or concerns after completing the questionnaire, contact information for the researcher was provided so that they could be contacted at any time. Through the implementation of these ethical considerations and measures, this study is committed to protecting the rights and well-being of participants while pursuing scientific exploration.

2.3. Participants

A total of 106 Chinese university students participated in this study. The participants were recruited through interpersonal networks among university students, where they accessed and completed the online questionnaire. Among the participants, 45 were male and 61 were female. One invalid questionnaire and two exceptional values, corresponding to participants whose data fell exactly on the x-axis and y-axis, were excluded from the analysis. This resulted in a final valid sample of 103 individuals.

2.4. Data preparation

To conduct data analysis, the first step involved recoding the positive statements in the ECR-R questionnaire to ensure that the scoring direction was consistent across all items, thereby maintaining data uniformity in subsequent calculations.

Next, the attachment-related anxiety and avoidance scores for each participant were calculated. Anxiety scores were plotted on the x-axis and avoidance scores on the y-axis, creating a coordinate

system based on ECR-R dimensions. In this coordinate system, the point (4,4) was set as the origin, dividing participants into four quadrants. The first to fourth quadrants corresponded to preoccupied, secure, dismissive, and fearful-avoidant (disorganized) attachment styles, respectively [5].

After classification, an ANOVA was conducted to determine whether there were significant differences in depression and anxiety levels among the four attachment types. Finally, linear regression analysis was performed to examine whether attachment type (independent variable) could predict levels of depression and anxiety (dependent variables).

3. Result

Descriptive statistics for depression and anxiety levels across different attachment types are presented in Table 1. The results indicate that individuals with a secure attachment type had the lowest mean depression score ($M = 6.39$) and anxiety score ($M = 4.70$). In contrast, individuals with a preoccupied attachment type exhibited the highest mean depression score ($M = 15.12$) and a high mean anxiety score ($M = 12.86$). Similarly, Disorganized and dismissive attachment types also showed higher levels of psychological distress.

Table 1: Descriptive Statistics for Depression and Anxiety Levels Across Different Attachment Types

	Depression Levels			Anxiety Levels	
	N	Mean	SD	Mean	SD
Secure Type	23	6.39	3.93	4.70	3.64
Preoccupied Type	58	15.12	9.01	12.86	7.33
Disorganized Type	7	15.86	4.74	11.57	3.91
Dismissive Type	15	13.67	7.73	12.93	6.93
Total	103	13.01	8.42	10.96	7.20

In Figure 1a, the mean depression scores for different attachment types are depicted, highlighting the significant differences in depression levels across secure, preoccupied, dismissive, and disorganized attachment styles. An ANOVA for unadjusted data revealed significant differences in depression levels across the four attachment types, $F(3, 99) = 7.384$, $p = .0002$, $\eta^2 = .183$. Secure individuals had significantly lower depression scores than those with preoccupied ($p < .0001$), disorganized ($p = .0056$), and dismissive ($p = .0056$) attachment types. The adjusted analysis confirmed these differences, with secure individuals having significantly lower depression scores compared to preoccupied ($p < .001$), disorganized ($p = .034$), and dismissive ($p = .034$) attachment types.

For anxiety, the unadjusted ANOVA also found significant differences among the attachment types, $F(3, 99) = 9.398$, $p < .0001$, $\eta^2 = .222$ (Figure 1b). Secure individuals had significantly lower anxiety levels compared to those with preoccupied ($p < .0001$) and dismissive ($p = .0002$) attachment types, and a significant difference was also found with disorganized individuals ($p = .0153$). However, the adjusted analysis showed that while secure individuals had significantly lower anxiety levels compared to preoccupied ($p < .001$) and dismissive ($p < .001$) types, the difference between secure and disorganized types was not statistically significant ($p = .092$).

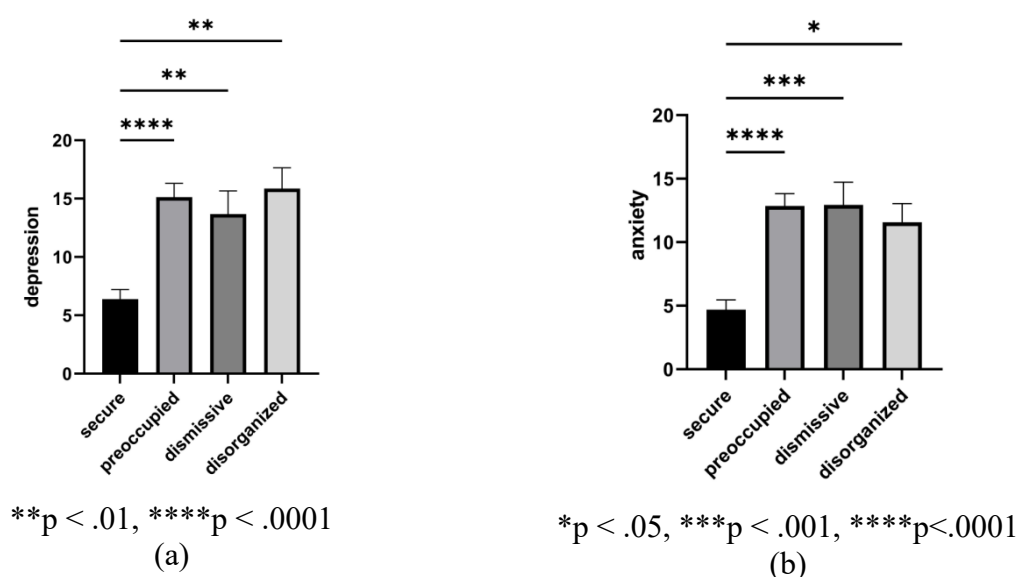


Figure 1: Mean Scores for Different Attachment Groups; (a) Depression Scores; (b) Anxiety Scores

A linear regression analysis was conducted to examine whether attachment-related anxiety and avoidance scores could predict depression and anxiety levels among participants. For depression, the regression equation provided a reasonable fit with the data ($R^2 = .293$), indicating that both attachment-related anxiety and avoidance scores were significant predictors of depression levels, $F(2, 100) = 20.676$, $p < .001$. The model suggests that a one-unit increase in the anxiety score results in an increase of 2.938 units in depression, while a one-unit increase in avoidance score results in a 3.276 unit increase in depression.

Similarly, the regression model for predicting anxiety also demonstrated a significant fit ($R^2 = .283$), indicating that 28.3% of the variance in anxiety levels was explained by the predictors, $F(2, 100) = 19.776$, $p < .001$. Specifically, both attachment-related anxiety ($B = 2.304$, $p < .001$) and avoidance ($B = 3.005$, $p < .001$) were significant predictors of anxiety.

These findings suggest that higher levels of attachment-related anxiety and avoidance are associated with higher levels of depression and anxiety among participants.

4. Discussion

This study aimed to investigate the relationship between attachment styles and mental health among Chinese university students, specifically focusing on depression and anxiety levels. The results reveal that individuals with secure attachment styles exhibit significantly lower levels of depression and anxiety compared to those with insecure attachment styles, such as preoccupied, dismissive, and disorganized attachments. These findings align with existing literature on attachment theory, which suggests that secure attachment acts as a protective factor against mental health issues like depression and anxiety. The lower mean scores in both depression and anxiety among securely attached individuals suggest greater emotional stability and resilience in the face of stressors [3]. In contrast, those with insecure attachment styles showed significantly higher levels of depression and anxiety, underscoring their vulnerability to psychological distress [6].

These findings offer valuable insights into the importance of recognizing an individual's attachment style as crucial for developing personalized treatment plans in mental health care [12]. For instance, individuals with secure attachment styles tend to respond more effectively to cognitive-behavioral therapy (CBT), demonstrating significant therapeutic progress. Conversely,

those with insecure attachment styles, such as anxious or avoidant types, often face greater challenges in emotion regulation and relationship building. Consequently, these individuals may benefit more from attachment-oriented therapies, which typically require longer treatment durations. This underscores the need to tailor mental health interventions to specific attachment styles to provide more effective and personalized care.

The clinical application of attachment theory has been widely adopted in treating depression and anxiety. Research has demonstrated that attachment-oriented therapeutic methods, particularly those that enhance attachment security, can significantly improve patients' mental health [13]. In therapy, fostering a supportive therapeutic relationship enables patients' deficiencies and maladaptive patterns to surface, serving as a catalyst for change. By offering corrective attachment experiences, these strategies effectively help patients enhance their mental well-being, further emphasizing the value of considering attachment styles in clinical practice.

Despite the practical advantages of categorizing attachment styles into distinct groups, this approach also introduces several limitations. One significant challenge encountered in this study was the reduction in statistical power due to the categorization of continuous attachment scores. While this approach facilitates comparisons across groups and enhances theoretical consistency, it also reduces the precision of measurements and lowers statistical power, particularly in groups with smaller sample sizes, such as the dismissive and disorganized attachment categories. This issue was reflected in the relatively low R-squared values observed in the regression models, indicating that a substantial portion of the variance in mental health outcomes remained unexplained. Treating attachment scores as continuous variables, or employing median splits to ensure more balanced groupings, might improve the robustness of future findings by better capturing the complexities of attachment-related anxiety and avoidance. Despite the practical advantages of categorizing attachment styles into distinct groups, this approach also introduces several limitations.

Another limitation was the occurrence of borderline significance, where results that were initially significant became non-significant after correction for multiple comparisons. This shift from significance to non-significance highlights the potential for Type I and Type II errors in statistical analyses and suggests that some findings may be more context-dependent or nuanced than initially apparent [14]. As such, these results should be interpreted with caution. To clarify these borderline effects, future studies could benefit from larger sample sizes, which would increase the statistical power and reduce the likelihood of both false positives and false negatives.

5. Conclusion

This study provides valuable insights into the relationship between attachment styles and mental health, specifically among Chinese university students. The findings emphasize the protective nature of secure attachment against depression and anxiety, highlighting the importance of considering attachment styles in both research and clinical settings. By tailoring mental health interventions to individual attachment styles, practitioners can enhance therapeutic outcomes and offer more personalized care. Although the study has limitations, it contributes significantly to our understanding of attachment theory's application in a non-Western context. Future research should focus on expanding sample sizes and refining measurement approaches to further explore the nuances of attachment-related mental health outcomes. These efforts could lead to the development of more effective and culturally sensitive mental health strategies, ultimately improving care for diverse populations.

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