


Fear of Abandonment and Psychosomatic Symptoms: The Mediating Role of Attachment Insecurity

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ABSTRACT

This study aimed to examine the relationship between fear of abandonment and psychosomatic symptoms and to investigate whether attachment insecurity mediates this relationship in a sample of Chinese young adults. The research followed a descriptive correlational design and included 419 participants from urban areas in China, selected based on the Morgan and Krejcie sampling table. Standardized instruments were used to measure fear of abandonment (Fear of Abandonment Scale), attachment insecurity (Experiences in Close Relationships–Revised), and psychosomatic symptoms (PHQ-15). Data were analyzed using Pearson correlation coefficients in SPSS-27 and structural equation modeling (SEM) in AMOS-21 to assess the mediating role of attachment insecurity. The results showed that fear of abandonment was positively correlated with both attachment insecurity ($r = .62, p < .001$) and psychosomatic symptoms ($r = .51, p < .001$). Attachment insecurity also had a significant positive correlation with psychosomatic symptoms ($r = .57, p < .001$). The structural model demonstrated good fit indices ($\chi^2/df = 2.13$, CFI = .96, RMSEA = .052), confirming the adequacy of the hypothesized model. Path analysis revealed that fear of abandonment significantly predicted attachment insecurity ($\beta = .62, p < .001$), which in turn predicted psychosomatic symptoms ($\beta = .46, p < .001$). The direct effect of fear of abandonment on psychosomatic symptoms remained significant ($\beta = .22, p = .002$), and the indirect effect through attachment insecurity was also significant ($\beta = .29, p < .001$), indicating partial mediation. These findings suggest that fear of abandonment contributes to psychosomatic symptoms both directly and indirectly through its impact on attachment insecurity. Addressing attachment-based vulnerabilities may be essential in the psychological treatment of individuals experiencing psychosomatic distress.

Keywords: fear of abandonment, attachment insecurity, psychosomatic symptoms.

1. Introduction

Psychosomatic symptoms—physical manifestations arising from psychological distress—are increasingly recognized as critical indicators of underlying emotional conflicts, trauma, or maladaptive relational patterns. These symptoms range from headaches and gastrointestinal distress to chronic pain, fatigue, and functional bodily complaints that cannot be fully explained by organic pathology. Research has consistently highlighted the complex interweaving of emotional dysregulation, early attachment disruptions, and relational insecurities in the development and persistence of psychosomatic symptoms (Aeran et al., 2024).

Fear of abandonment refers to a pervasive anxiety of being left behind, neglected, or emotionally deserted by significant others. This fear is often rooted in early experiences of inconsistent caregiving or relational trauma and is associated with hyperactivation of the attachment system. Individuals with heightened fear of abandonment tend to exhibit hypersensitivity to relational cues, emotional reactivity, and efforts to avoid rejection. Recent studies suggest that such fear may act as a precipitating factor for somatic complaints, particularly when individuals lack effective emotion regulation strategies (Alsaaffar, 2023). When psychological pain cannot be consciously acknowledged or expressed, it may instead be somatized, leading to chronic or recurrent physical symptoms.

Attachment theory offers a compelling framework for understanding the link between abandonment fears and somatization. Attachment insecurity—typically characterized by high levels of anxiety and/or avoidance—develops in the context of early relational experiences and persists across the lifespan, influencing how individuals regulate emotions and interpret interpersonal events (Bai, 2024). Insecurely attached individuals often display diminished emotional awareness, impaired self-soothing abilities, and maladaptive coping patterns, all of which are relevant to the development of psychosomatic conditions. Attachment anxiety, in particular, has been associated with hypervigilance to threat and increased stress reactivity, while attachment avoidance may contribute to emotional suppression and internalization of distress (Medlej & Greer, 2024). These patterns potentially amplify the risk of psychosomatic symptoms, especially under conditions of relational instability or perceived rejection.

A growing body of empirical evidence supports the mediating role of attachment insecurity in the relationship

between psychological risk factors and physical health outcomes. For example, in a study examining adult attachment and psychosomatic symptoms, attachment insecurity was found to mediate the effect of emotional dysregulation on somatic complaints, indicating its centrality in the psychosomatic process (Medlej & Greer, 2024). Furthermore, interventions targeting attachment patterns—such as attachment-based therapy—have been shown to reduce emotional distress and improve somatic functioning, underscoring the relevance of attachment systems in bodily health (Ghanavati, 2024). Despite these findings, limited research has specifically explored how fear of abandonment, as a distinct relational fear, interacts with attachment insecurity to influence psychosomatic outcomes.

Cultural factors also play a significant role in the manifestation and interpretation of psychosomatic symptoms. In East Asian cultures, including China, somatization may be more socially acceptable than direct expression of emotional or psychological pain. This cultural tendency can lead to underreporting of emotional distress and overreporting of physical symptoms, thereby reinforcing the psychosomatic cycle (Jiao et al., 2024). The current study, conducted with a Chinese sample, adds to the growing literature on culturally informed models of psychosomatic symptomatology by addressing the psychological mechanisms underlying these patterns. Prior studies conducted in China have demonstrated high rates of psychosomatic symptoms among university students and working professionals, often linked to relational stress, perfectionism, and psychological conflict (Amirian et al., 2022; Jiao et al., 2024).

Emotion regulation difficulties are frequently implicated in the etiology of psychosomatic symptoms. When individuals struggle to manage emotional arousal, bodily symptoms may become the default mode of expressing distress. Research has shown that maladaptive cognitive emotion regulation strategies—such as rumination, catastrophizing, and suppression—mediate the relationship between early schemas, alexithymia, and somatic complaints (Farahi et al., 2023). Similarly, emotional dysregulation stemming from poor attachment experiences can trigger physiological arousal and disrupt immune, hormonal, and neurological systems, resulting in physical health disturbances (Chen et al., 2024). These findings are consistent with the theory that unprocessed emotional experiences, particularly those related to attachment trauma, are encoded somatically and later expressed through bodily symptoms.

Recent studies have also emphasized the mediating and moderating role of guilt and self-perception in the relationship between psychological distress and somatic outcomes. Guilt, often stemming from perceived interpersonal failures or inadequacies, has been found to mediate the relationship between burnout and psychosomatic disorders in both Western and non-Western samples (Figueiredo-Ferraz et al., 2021; Gil-LaOrden et al., 2024). This suggests that internalized negative emotions related to the self and others may contribute significantly to psychosomatic processes. Furthermore, experimental evidence from psychosomatic medicine indicates that stress-induced metabolic changes—such as alterations in sphingolipid profiles—can serve as physiological markers of unresolved psychological conflict, providing a biological substrate for somatic symptomatology (Werner, 2025).

Several studies have highlighted specific predictors of psychosomatic disorders, such as experiential avoidance, alexithymia, and perfectionism. For example, individuals who habitually avoid internal experiences or struggle to identify and articulate emotions are more likely to report somatic complaints, as emotional content is diverted into the body (pardh et al., 2022). Perfectionistic individuals, particularly those with conditional self-worth, may be more vulnerable to psychosomatic symptoms when faced with interpersonal stress, especially if they fear rejection or failure (Amirian et al., 2022). These findings align with theoretical models suggesting that rigid cognitive schemas and impaired emotion processing are central to the development of psychosomatic conditions.

In addition to psychological variables, demographic and biological factors also influence psychosomatic outcomes. Age, gender, and hormonal fluctuations have been linked to the prevalence and severity of psychosomatic symptoms, particularly in women. For instance, functional disorders of the female reproductive system—such as menstrual irregularities and endometriosis—have been associated with increased psychosomatic distress, especially in adolescence and early adulthood (Petelin et al., 2023; Philippova et al., 2023). Somatic complaints in youth may also reflect early developmental stressors and caregiver dynamics, reinforcing the need for longitudinal and developmental perspectives in psychosomatic research (Philippova et al., 2023).

Effective treatment of psychosomatic disorders often requires a biopsychosocial approach, integrating psychological assessment, relational interventions, and somatic care. Neuropsychological and psychotherapeutic techniques—such as mindfulness-based stress reduction,

emotion-focused therapy, and neuro-correction—have shown promise in treating psychosomatic conditions by targeting both the mind and body (Nataliya Pylypenko et al., 2022; Nataliia Pylypenko et al., 2022). Interventions that enhance mentalizing, self-regulation, and attachment security are particularly relevant for individuals with a history of trauma or abandonment fears. In parallel, psychosomatic diagnostics have increasingly incorporated culturally sensitive tools and techniques to capture the complex interplay of psychological and physiological symptoms in diverse populations (Narmetova et al., 2021; Subbotina et al., 2022). The present study examines the specific role of fear of abandonment as a psychological vulnerability and attachment insecurity as a mediating mechanism in the emergence of psychosomatic symptoms in young adults.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a descriptive correlational design to examine the relationship between fear of abandonment, attachment insecurity, and psychosomatic symptoms, and to explore the mediating role of attachment insecurity. The target population included university students and young adults residing in urban areas of China. Based on the Morgan and Krejcie (1970) sample size determination table, a total of 419 participants were selected through stratified random sampling to ensure diversity in demographic background. Inclusion criteria required participants to be between 18 and 35 years old, fluent in Mandarin, and without any diagnosed physical illness that could interfere with the assessment of psychosomatic symptoms. All participants provided informed consent and completed self-report questionnaires administered in person or via secure online platforms.

2.2. Measures

2.2.1. Psychosomatic Symptoms

To assess psychosomatic symptoms, the Patient Health Questionnaire-15 (PHQ-15), developed by Kroenke, Spitzer, and Williams in 2002, was used. This self-report inventory is widely recognized as a standard tool for measuring the severity of somatic symptoms in clinical and research contexts. The PHQ-15 consists of 15 items that evaluate common physical symptoms, such as gastrointestinal distress, fatigue, and pain, over the past four weeks. Respondents rate how much they have been bothered

by each symptom on a 3-point Likert scale ranging from 0 (“not bothered at all”) to 2 (“bothered a lot”), yielding a total score between 0 and 30. Higher scores indicate more severe somatic symptomatology. The PHQ-15 has demonstrated good internal consistency (Cronbach’s $\alpha \approx .80$) and test-retest reliability, and its construct and criterion validity have been confirmed in various populations, making it a reliable tool for identifying psychosomatic symptom patterns (Habib et al., 2018; Habukawa et al., 2022; Medlej & Greer, 2024).

2.2.2. Attachment Insecurity

Attachment insecurity was measured using the Experiences in Close Relationships–Revised (ECR-R) questionnaire, developed by Fraley, Waller, and Brennan in 2000. The ECR-R is a widely used instrument that assesses adult romantic attachment styles, focusing on two key dimensions: attachment anxiety and attachment avoidance. The tool includes 36 items, with 18 items per subscale, rated on a 7-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Higher scores indicate greater levels of attachment anxiety or avoidance. The ECR-R has shown excellent psychometric properties, with internal consistency coefficients for both subscales typically exceeding .90. Its validity and reliability have been extensively supported in diverse cultural and clinical contexts, rendering it a standard tool in attachment-related research (Kealy et al., 2021; Sumbaga & Lapian, 2023; Thornton et al., 2024).

2.2.3. Fear of Abandonment

Fear of abandonment was evaluated using the Fear of Abandonment Scale (FOAS), developed by Jennifer B. Goldsmith in 1998. The FOAS is designed to measure the intensity and frequency of fears related to being abandoned by significant others. The scale includes 15 items rated on a 5-point Likert scale, ranging from 1 (“not at all true”) to 5 (“very true”), with higher scores reflecting greater fear of abandonment. Items cover both emotional and behavioral aspects of abandonment concerns, and while the FOAS does

not have formal subscales, it is often interpreted as a unidimensional measure of abandonment-related anxiety. The scale has demonstrated high internal consistency (Cronbach’s $\alpha > .85$) and solid construct validity across studies involving both clinical and non-clinical populations. Its robust psychometric profile supports its use in research focusing on relational insecurity and emotional vulnerability (Kassel et al., 2007).

2.3. Data Analysis

Data were analyzed using SPSS version 27 and AMOS version 21. Descriptive statistics were computed for all variables to assess the distribution and central tendencies. To examine the bivariate associations between psychosomatic symptoms (dependent variable) and the two independent variables—fear of abandonment and attachment insecurity—Pearson correlation coefficients were calculated. Furthermore, structural equation modeling (SEM) was conducted using AMOS-21 to test the hypothesized mediating role of attachment insecurity in the relationship between fear of abandonment and psychosomatic symptoms. Model fit indices such as the Chi-square statistic, RMSEA, CFI, and TLI were used to evaluate the adequacy of the proposed model. Significance was assessed at the $p < .05$ level for all statistical analyses.

3. Findings and Results

The final sample consisted of 419 participants from China, with 232 (55.4%) identifying as female and 187 (44.6%) as male. The participants' ages ranged from 18 to 35 years ($M = 24.18$, $SD = 4.71$). In terms of educational background, 186 participants (44.4%) were undergraduate students, 157 (37.5%) were graduate students, and 76 (18.1%) held a completed university degree. Regarding relationship status, 223 individuals (53.2%) reported being single, 151 (36.0%) were in a romantic relationship, and 45 (10.7%) were married. All participants reported Mandarin as their primary language, and the majority ($n = 367$; 87.6%) resided in urban areas at the time of the study.

Table 1

Descriptive Statistics for Study Variables (N = 419)

Variable	M	SD
Fear of Abandonment	48.67	8.92
Attachment Insecurity	131.42	21.35
Psychosomatic Symptoms	12.83	5.18

The descriptive results in Table 1 show that the mean score for fear of abandonment was 48.67 (SD = 8.92), while attachment insecurity had a mean of 131.42 (SD = 21.35), consistent with mid-to-high levels based on scoring range of the ECR-R. Psychosomatic symptoms, measured by the PHQ-15, had a mean score of 12.83 (SD = 5.18), indicating a moderate level of somatic complaints in the sample.

Prior to conducting the main analyses, the assumptions of normality, linearity, multicollinearity, and homoscedasticity were examined. Normality was confirmed by inspecting skewness and kurtosis values for all continuous variables,

which ranged between -0.87 and 0.74 for skewness and -0.92 to 1.08 for kurtosis, indicating acceptable limits. Linearity was assessed through scatterplots, which revealed linear relationships between the variables. Multicollinearity was ruled out, as variance inflation factor (VIF) values ranged from 1.12 to 1.34, all well below the threshold of 5. Homoscedasticity was evaluated using residual plots, which showed a random scatter, confirming equal variance across values of the independent variables. Therefore, all key assumptions were satisfactorily met for Pearson correlation and SEM analyses.

Table 2

Pearson Correlations Between Study Variables

Variables	1	2	3
1. Fear of Abandonment	—		
2. Attachment Insecurity	.62** (p < .001)	—	
3. Psychosomatic Symptoms	.51** (p < .001)	.57** (p < .001)	—

Table 2 displays the Pearson correlations among the main study variables. Fear of abandonment was significantly and positively correlated with attachment insecurity ($r = .62$, $p < .001$) and psychosomatic symptoms ($r = .51$, $p < .001$).

Additionally, attachment insecurity was significantly correlated with psychosomatic symptoms ($r = .57$, $p < .001$). These results indicate strong associations among all three variables, supporting the assumption of a mediation model.

Table 3

Fit Indices for the Structural Equation Model

Fit Index	Value	Threshold Criteria
χ^2	178.62	—
df	84	—
χ^2/df	2.13	< 3.00
GFI	.94	> .90
AGFI	.91	> .90
CFI	.96	> .95
RMSEA	.052	< .06
TLI	.95	> .95

Table 3 presents the model fit indices for the structural equation model. The model showed a good fit to the data, with a $\chi^2(84) = 178.62$ and a χ^2/df ratio of 2.13. Other indicators also supported the model fit: GFI = .94, AGFI =

.91, CFI = .96, TLI = .95, and RMSEA = .052. All indices fall within the acceptable thresholds, indicating that the proposed model adequately represents the data structure.

Table 4

Direct, Indirect, and Total Effects Between Variables in the Structural Model

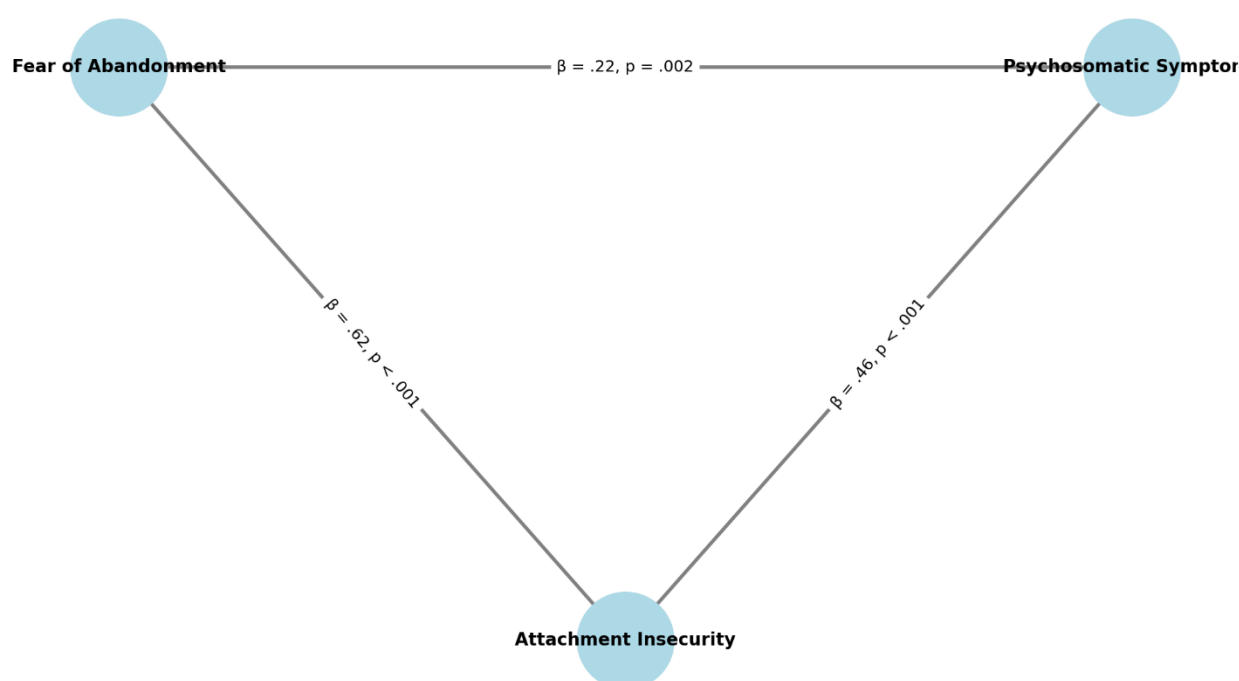
Path	B	SE	β	p
Fear of Abandonment → Attachment Insecurity	1.08	0.14	.62	< .001
Attachment Insecurity → Psychosomatic Symptoms	0.11	0.02	.46	< .001
Fear of Abandonment → Psychosomatic Symptoms (Direct)	0.13	0.04	.22	.002
Fear of Abandonment → Psychosomatic Symptoms (Indirect)	0.12	0.03	.29	< .001
Fear of Abandonment → Psychosomatic Symptoms (Total)	0.25	0.04	.51	< .001

Table 4 shows the direct, indirect, and total effects in the structural equation model. Fear of abandonment significantly predicted attachment insecurity ($B = 1.08$, $\beta = .62$, $p < .001$), and attachment insecurity significantly predicted psychosomatic symptoms ($B = 0.11$, $\beta = .46$, $p < .001$). The direct effect of fear of abandonment on psychosomatic symptoms remained significant ($B = 0.13$, β

$= .22$, $p = .002$). The indirect effect via attachment insecurity was also significant ($B = 0.12$, $\beta = .29$, $p < .001$), confirming partial mediation. The total effect of fear of abandonment on psychosomatic symptoms ($B = 0.25$, $\beta = .51$, $p < .001$) underscores its strong influence through both direct and mediated paths.

Figure 1

Model with Beta Coefficients



4. Discussion and Conclusion

The present study aimed to investigate the relationship between fear of abandonment and psychosomatic symptoms and to examine whether attachment insecurity mediates this relationship among Chinese young adults. The results indicated that fear of abandonment was positively correlated with psychosomatic symptoms, confirming the hypothesis that individuals who experience persistent anxiety about being rejected or left by significant others are more prone to physical symptoms. Additionally, attachment insecurity was found to significantly mediate this relationship, suggesting that individuals with heightened abandonment fears are more likely to develop insecure attachment styles, which in turn increase their vulnerability to psychosomatic distress.

The positive association between fear of abandonment and psychosomatic symptoms aligns with previous literature

identifying relational fears as important psychological precursors to somatic complaints. Fear of abandonment activates the attachment system, creating chronic stress, emotional hypervigilance, and increased physiological arousal, all of which can manifest physically when not adequately regulated (Alsaffar, 2023). As suggested by Aeran et al., unexpressed emotional pain often transforms into bodily symptoms, especially when direct communication of distress is discouraged or internal coping resources are limited (Aeran et al., 2024). In the cultural context of China, where emotional restraint is often valued, such relational fears may be somatized more readily, contributing to the high prevalence of psychosomatic symptoms among young adults (Jiao et al., 2024).

The mediating role of attachment insecurity provides a critical link in understanding how fear of abandonment influences physical health. Individuals with insecure

attachment—whether anxious or avoidant—struggle with emotional regulation, exhibit heightened stress responses, and often experience difficulty in identifying or communicating emotional needs (Bai, 2024). These dynamics are consistent with findings from Medlej and Greer, who demonstrated that insecure adult attachment styles significantly predict psychosomatic symptomatology, particularly when emotional regulation skills are compromised (Medlej & Greer, 2024). Furthermore, the study by Ghanavati confirms that attachment-based interventions can reduce emotional dysregulation and thereby alleviate psychosomatic distress in adolescents, reinforcing the centrality of attachment in the psychosomatic process (Ghanavati, 2024).

The finding that attachment insecurity serves as a mediator also aligns with broader models of emotion regulation and somatization. Prior research has shown that when emotional responses are poorly integrated, especially due to early attachment disruptions, individuals are more likely to internalize distress through physical symptoms (Farahi et al., 2023). Similarly, maladaptive cognitive emotion regulation strategies such as suppression, rumination, and catastrophizing—which are more common among those with insecure attachment—can exacerbate the somatization process (Chen et al., 2024). These regulatory failures are further reinforced by perfectionistic or avoidant traits that prevent emotional disclosure, as highlighted in research by Amirian and colleagues on university students with psychosomatic complaints (Amirian et al., 2022).

Moreover, the role of guilt and internalized self-perception may further explain how relational stress leads to somatization. As shown in studies by Gil-LaOrden and Figueiredo-Ferraz, feelings of guilt—often associated with interpersonal expectations and perceived failures—can mediate the relationship between emotional exhaustion and psychosomatic symptoms (Figueiredo-Ferraz et al., 2021; Gil-LaOrden et al., 2024). This is particularly relevant in the context of abandonment fears, where individuals may blame themselves for relational instability and unconsciously translate these unresolved emotions into somatic experiences.

Biological evidence also supports the psychosomatic impact of stress and relational trauma. Werner's study on sphingolipid metabolism in psychosomatic disorders highlights how chronic emotional distress influences physiological systems, altering neurological and immunological responses (Werner, 2025). These findings suggest a neurobiological pathway through which

attachment-related stress and fear of abandonment can produce real physical symptoms. Additionally, Gao et al. demonstrated that phobic anxiety negatively affects physical functioning across age groups, supporting the idea that unregulated emotional distress compromises health outcomes regardless of age or context (Gao et al., 2021).

Further support for the current study's findings comes from research on experiential avoidance and alexithymia. Pardh and colleagues found that individuals with high levels of experiential avoidance and difficulties in emotional identification were more likely to exhibit psychosomatic complaints, a pattern strongly associated with insecure attachment and fear-based relational schemas (pardh et al., 2022). These findings correspond with results from Pylypenko's studies on neuropsychological interventions, which underscore the necessity of targeting emotional processing skills to reduce psychosomatic symptoms (Nataliya Pylypenko et al., 2022; Nataliia Pylypenko et al., 2022).

The demographic relevance of the findings is further supported by studies on gender-specific and age-related psychosomatic patterns. Petelin et al. and Philippova et al. found that functional diseases of the reproductive system and adolescent somatic disorders are often linked to underlying psychological conflicts and developmental stressors (Petelin et al., 2023; Philippova et al., 2023). These results highlight the importance of considering developmental histories and gender in psychosomatic research, particularly given that fear of abandonment and attachment insecurity often have roots in early caregiving environments.

From a psychological services perspective, Narmetova et al. emphasized the importance of integrating psychodiagnostic and psychocorrective approaches in psychosomatic treatment plans, advocating for attachment-informed interventions as essential tools for emotional and somatic regulation (Narmetova et al., 2021). In parallel, Subbotina's findings on coping strategies in women with endometriosis point to the need for personalized, trauma-informed therapeutic models, especially when relational fears are prominent (Subbotina et al., 2022).

Despite the compelling findings, this study has several limitations. First, the cross-sectional design limits causal inference, as it is not possible to determine whether fear of abandonment leads to psychosomatic symptoms through attachment insecurity over time. Longitudinal studies are needed to clarify the directionality of these relationships. Second, the use of self-report questionnaires may have introduced response biases, such as social desirability or

recall inaccuracies, particularly in the assessment of sensitive variables like attachment insecurity. Third, although the sample size was adequate, participants were drawn exclusively from Chinese urban populations, which may limit the generalizability of the findings to other cultural or socioeconomic contexts. Additionally, this study did not differentiate between the subtypes of attachment insecurity (anxious vs. avoidant), which may have nuanced effects on somatic symptomatology.

Future studies should consider employing longitudinal designs to track changes in attachment style and somatic symptoms over time, particularly in the context of interpersonal stress or therapeutic intervention. Researchers might also use multi-method approaches, including clinical interviews or physiological measures, to corroborate self-reported symptoms and minimize bias. It would be beneficial to explore whether specific types of attachment insecurity—such as preoccupied or dismissive patterns—have distinct impacts on psychosomatic expression. Furthermore, comparative studies across different cultural contexts could shed light on how cultural norms influence the somatization of relational anxiety. Expanding research to clinical populations, such as individuals with diagnosed somatic symptom disorder or borderline personality disorder, could also deepen our understanding of these psychological mechanisms.

The findings of this study suggest several practical applications for mental health professionals and healthcare providers. Clinicians should routinely assess for relational fears and attachment insecurity when working with clients who present with unexplained physical symptoms. Attachment-informed interventions, including emotionally focused therapy and schema-based approaches, may help address the root causes of psychosomatic complaints. Psychoeducation can empower clients to understand the connection between their emotional and physical health, fostering greater insight and self-regulation. Healthcare providers should adopt an integrative approach, collaborating with mental health specialists to develop comprehensive treatment plans that address both emotional and somatic symptoms. Lastly, culturally sensitive practices are essential, particularly in populations where emotional expression is stigmatized or suppressed, to ensure accurate diagnosis and effective intervention.

Declaration

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

Transparency Statement

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

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Declaration of Interest

The author report no conflict of interest.

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Ethics Considerations

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

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