

Self-Disclosure and Anxiety in University Students in Long-Distance Relationships: An Attachment Style Perspective

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Kata Kunci	Abstract
Anxiety, attachment style, long-distance relationship, self-disclosure	Long-distance relationships are a condition frequently experienced by university students in romantic partnerships, often leading to anxiety due to the limited opportunities for direct interaction. This research aims to examine the effect of self-disclosure on the anxiety of students engaged in long-distance relationships, viewed from the perspective of attachment style. The research employed a quantitative approach with 265 participants selected through purposive sampling. Three instruments were used for measurement: the Zung Self-Rating Anxiety Scale (ZSAS), a self-disclosure scale based on Devito's (1986) theory, and an attachment style scale adapted from Bartholomew and Horowitz (1991). Data were analyzed using moderated multiple linear regression. The findings revealed a significant effect of self-disclosure on student anxiety; however, attachment style did not strengthen or weaken this effect. This study provides practical implications for students in maintaining long-distance relationships through enhanced self-disclosure, as well as theoretical contributions to the field of relationship psychology. Self-disclosure is effective in reducing student anxiety in LDR, but its effectiveness is not affected by attachment styles. These findings provide practical implications for students in managing LDR through increased openness, as well as theoretical contributions to the development of relationship psychology.

INTRODUCTION

Human beings are social creatures who depend on one another, and in their daily activities, individuals spend a considerable amount of time engaging with others (Myers & Twenge, 2016). Social relationships take various forms, one of which is heterosexual relationships (Myers & Twenge, 2016). Such relationships are an integral part of human social dynamics and may evolve in different ways, including marital bonds (Setyawan, 2021).

Married couples generally live together, share both joys and hardships, and provide mutual support during difficult times. Nevertheless, marriage is not free from potential conflicts. When conflicts cannot be resolved, couples may choose to withdraw from the relationship or even separate. The inability to effectively resolve conflicts can ultimately lead to divorce. Data from the Central Bureau of Statistics indicate that divorce rates in Indonesia remain high, with 399,921 recorded cases in 2024, of which 251,828 were attributed to ongoing disputes and frequent quarrels.

One of the primary factors that trigger conflict in relationships is communication problems, as noted by Around and Pauker (in Olson, DeFrain, & Skogrand, 2019). Olson, DeFrain, and Skogrand (2019) emphasized that communication plays a crucial role at every stage of intimate relationships, both before and after marriage. Poor communication patterns during courtship are likely to persist into marriage.

Courtship, commonly referred to as dating, is considered one of the developmental tasks specific to early adulthood (Santrock, 2018). According to Hampton (in Ulfa & Adhrianti, 2019), dating can be categorized into two types: Proximal Relationships (PR) and Long-Distance Relationships (LDR). Proximal Relationships refer to couples who reside in the same

city, whereas Long-Distance Relationships involve couples who maintain their bond despite geographical separation, one of the common reasons being educational pursuits.

Being in a long-distance relationship presents a considerable challenge for university students due to limited face-to-face contact, reduced opportunities to meet in person, insufficient communication, and the potential for mutual suspicion. According to findings from the LDR Research Center, 27% of couples in long-distance relationships end their relationship within the first month. This percentage increases to approximately 37% within the first three months and reaches 42% within the first six months (Amikom Purwokerto, 2021). Geographical separation may trigger anxiety in one or both partners. Anxiety is a psychological condition that threatens an individual's sense of security, with unclear sources of threat, causing fear and apprehension about the future. Cameron and Ross (2007) stated that LDRs often result in heightened anxiety among those who experience them. This was supported by interviews conducted with two female and one male student currently in LDRs, each reporting distinct manifestations of anxiety. Informant I withdrew from their social environment and often cried; Informant II struggled to maintain focus in academic activities, while Informant III experienced fluctuating emotions that disrupted daily routines and academic performance. These varying impacts demonstrate how anxiety in long-distance relationships can generate contradictory feelings, indecisiveness, and heightened worry (Tseng, 2016).

One of the key factors that can support long-distance relationships is mutual openness. Devito (2016) defines self-disclosure as a form of communication, specifically the revelation of personal information that is typically kept private. Self-disclosure fosters intimacy within relationships and helps resolve conflicts by rebuilding trust between partners (Zhang, 2017).

Couples in long-distance relationships therefore need positive strategies to sustain their relationships and overcome associated challenges. Self-disclosure between partners reduces barriers and alleviates anxiety, making it a crucial element for relationship maintenance. Even in the era of advanced technology, LDRs rarely succeed without openness between partners (Septiani & Tania, 2021). Similarly, research conducted by Cesaria and Fardana (2022) on married couples in long-distance relationships found that openness was one of the five key factors identified across their four study participants.

Based on previous studies, the majority of individuals in long-distance relationships (LDRs) are married couples. However, this does not preclude the possibility that young adults who are still dating may also experience LDRs. Cameron and Ross (2007) found that LDRs can heighten anxiety and have been shown to reduce sexual satisfaction, which in turn affects relationship harmony. Furthermore, high levels of anxiety may negatively impact students' quality of life, as demonstrated in recent studies which revealed a relationship between anxiety and quality of life (Wang et al., 2019).

This study aims to examine the effect of self-disclosure on the anxiety experienced by university students in long-distance relationships, with particular attention to attachment style. According to Grabill and Kerns (as cited in Welch & Houser, 2010), individuals with secure attachment are more likely to engage in self-disclosure due to their positive views of themselves and others. Conversely, those with attachment anxiety or avoidance tend to struggle with self-disclosure because of negative self-perceptions. Nevertheless, self-disclosure remains relevant to both attachment anxiety and avoidance, as it can serve as a means of fostering closeness and reducing the fear of abandonment. In general, insufficient self-disclosure may create emotional distance within a relationship (McCroskey & Richmond, as cited in Welch & Houser, 2010).

Attachment refers to the bond formed between an individual and their attachment figure (Bowlby, 1969). In the context of romantic relationships, a partner becomes an attachment figure as individuals attempt to build such bonds. Everyone, regardless of gender, carries

attachment patterns developed in childhood into adulthood, which influence their capacity to form close relationships. When entering intimate relationships in adulthood, these early-learned patterns unconsciously affect how individuals respond to conflict with their partners. Thus, the parent-child bond plays an essential role in shaping an individual's ability to form close connections with others later in life (Timm & Keiley, 2011).

From the explanation above, it is evident that much of the existing research has focused on friendships or married couples. However, the role of self-disclosure in the context of long-distance relationships among university students, particularly when examined through the lens of attachment style, remains underexplored. Moreover, no previous studies have specifically investigated the influence of self-disclosure on anxiety in individuals engaged in LDRs. The effectiveness of self-disclosure in reducing anxiety also appears inconsistent, depending on personality characteristics, one of which is attachment style. Therefore, this study seeks to explore how self-disclosure affects anxiety among students in long-distance relationships, considering that the anxiety they experience may differ from that observed in other populations.

Anxiety is a feeling of fear or worry without a clear cause, functioning as a warning of potential danger. Freud conceptualized anxiety as a threat that is difficult to manage, whereas Spielberger and Reheiser (2009) defined it as an emotional state characterized by tension, physiological responses, and apprehension about negative outcomes. Among university students in long-distance relationships (LDRs), anxiety often arises from ineffective communication (Stafford & Merolla, 2007). According to recent studies on anxiety, it encompasses emotional, cognitive, and physiological aspects and is influenced by environmental factors, repressed emotions, and physical conditions (Hofmann et al., 2016).

Research by Stafford and Merolla (2007) found that open and honest communication contributes to relationship satisfaction and reduces anxiety among couples in LDRs. One important element of such communication is self-disclosure, which refers to the process by which individuals reveal personal information that has not been previously shared with others (Devito, 2016). Self-disclosure includes five dimensions: depth or intimacy, honesty and accuracy, amount, duration and frequency, valence, and intensity (Devito, 2016). When students share personal information, feelings, and concerns with their partners, this process fosters trust and emotional closeness, both of which are crucial in the context of LDRs, which are often marked by uncertainty.

Self-disclosure is a crucial aspect of maintaining emotional closeness despite physical distance; however, its effectiveness may be influenced by an individual's attachment style. According to Bowlby (1988), the bond between parent and child forms the foundation of security and self-confidence, while Bartholomew and Horowitz (1991) categorized adult attachment styles into secure, anxious-preoccupied, fearful-avoidant, and dismissive-avoidant. Attachment style shapes how individuals perceive themselves and their partners, as well as how they regulate emotions. Among university students in long-distance relationships, differences in attachment style may determine the effectiveness of self-disclosure in sustaining the relationship and reducing anxiety.

Based on this description, this study aims to examine the effect of self-disclosure on anxiety in students in LDR and analyze the role of attachment style as a moderation variable. Practically, the results of this study are expected to provide benefits in the form of strategic contributions for students in managing anxiety and maintaining long-distance relationships through open communication, considering the characteristics of self-attachment. Theoretically, these findings are expected to enrich the literature on relationship psychology, by providing empirical evidence on the dynamics of self-disclosure and anxiety in the context of LDR in young adult populations, an area that is still limited in study.

Based on the above explanation, the hypotheses of this study are as follows: there is an effect of self-disclosure on anxiety among students in long-distance relationships; the more openly individuals communicate with their partners, the lower their levels of anxiety. Furthermore, attachment style is proposed to function as a moderating variable that may strengthen or weaken the relationship between self-disclosure and anxiety.

METHOD

This study employed a quantitative research design aimed at testing hypotheses through data collection using measurement instruments (Sugiyono, 2020). The purpose of this research was to identify the effect of the independent variable (self-disclosure) on the dependent variable (anxiety) and to examine the moderating role of attachment style in this relationship. Data were collected using questionnaires distributed via Google Forms, which were shared through the researcher's social media platforms. The questionnaire consisted of items measuring self-disclosure, anxiety levels, and attachment style.

The population of this study consisted of university students engaged in long distance relationships (LDRs), with a minimum sample size of 119 participants. The sample size was determined using the G*Power formula (Faul et al., 2009) with an effect size of $d = 0.15$, a significance level (α) of 0.05, and a statistical power of 0.95. The sampling technique employed was purposive sampling, in which participants are selected based on specific criteria determined by the researcher (Sugiyono, 2019). The criteria for participants in this study were as follows: (1) students currently in an LDR; (2) male or female; and (3) aged between 18 and 25 years.

The instruments used to collect data in this study consisted of three scales: the Zung Self-Rating Anxiety Scale (ZSAS) to measure anxiety, a self-disclosure scale based on Devito's (1986) theory, and an attachment style scale adapted from Bartholomew and Horowitz (1991). The ZSAS is designed to assess anxiety symptoms experienced by individuals. It consists of 20 items, with responses scored on a four-point scale (1, 2, 3, or 4). The validity of the ZSAS exceeds the minimum requirement of 0.05, while its reliability is indicated by a Cronbach's alpha value of 0.829 (Dunstan & Scott, 2020). The total score is obtained by summing responses across all items (ranging from 20 to 80), with higher scores reflecting higher levels of anxiety up to the panic level.

For the self-disclosure scale, this study employed the instrument developed by Sherisa Bella (2024), which was adapted in her research. The scale demonstrated validity exceeding the minimum requirement of 0.05 and reliability indicated by a Cronbach's alpha value of 0.951. It consists of 35 items in a Likert-scale format with four response options (1 = strongly disagree to 4 = strongly agree). The total score is obtained by summing responses across all items (ranging from 35 to 140), with higher scores indicating a higher level of self-disclosure.

In addition, the attachment style scale was based on the theory of Bartholomew and Horowitz (1991) and was adapted from Wanda Bianita's (2022) study. This instrument also demonstrated validity exceeding the minimum requirement of 0.05, with reliability indicated by a Cronbach's alpha value of 0.775. The scale consists of 22 items in a Likert-scale format with five response options (1 = strongly disagree to 5 = strongly agree). The total score is calculated by summing responses across all items (ranging from 22 to 110), with higher scores indicating a stronger tendency toward the dismissing/avoidant attachment style.

In this study, data were analyzed using multiple linear regression with SPSS version 31. The multiple regression analysis employed a moderation approach to examine the effect of self-disclosure on the anxiety of students in long-distance relationships, with attachment style serving as the moderating variable. The results of the analysis were presented through

regression coefficients, significance values, and variable interactions, which were interpreted in accordance with the objectives of the study.

RESULTS AND DISCUSSION

Table 1. Gender

Gender	Frequency	Percent
Male	66	24.9
Female	199	75.1
Total	265	100.0

Source: Primary data processed, 2024

In this study, the total number of respondents was 265 participants. Of these, 199 respondents (75.1%) were female, while 66 respondents (24.9%) were male.

Table 2. Duration Relationship

Relationship Duration	Frequency	Percent
< 1 Year	45	17.0
1–3 Years	164	61.9
> 3 Years	56	21.1
Total	265	100.0

Source: Primary data processed, 2024

Based on the table above, the majority of respondents reported a relationship duration of 1–3 years (61.9%), followed by more than 3 years (21.1%), and less than 1 year (17.0%). This indicates that most participants were engaged in relationships that had reached a relatively stable phase.

Table 3. Multiple Linear Regression Test

	Unstandardized B	Sig.
(Constant)	10.096	.273
Attachment Style	.721	<.001
Self-Disclosure	-.228	<.001

Source: Primary data processed, 2024

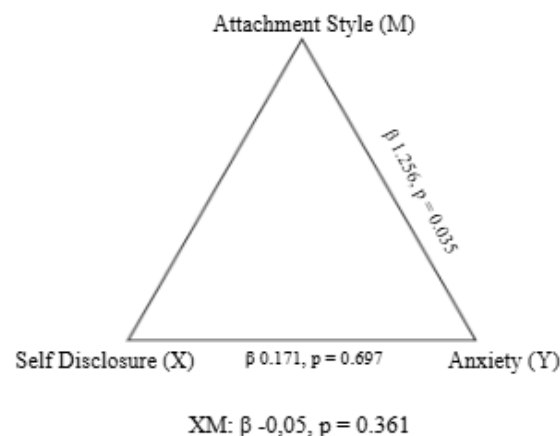
a. Dependent Variable: Anxiety

Based on the hypothesis testing results in Table 3, the constant value was 10.096, which is positive and does not provide specific information regarding the increase or decrease of each variable. Furthermore, the effect of self-disclosure on anxiety yielded a coefficient value of $\beta = -0.228$, $p = 0.001 < 0.05$, indicating a significant negative effect. Meanwhile, the effect of attachment style on anxiety produced a coefficient value of $\beta = 0.721$, $p = 0.001 < 0.05$, demonstrating a significant positive effect.

Table 4. Moderated Multiple Linear Regression Test

	Unstandardized B	Sig.
(Constant)	-30.604	.501
Attachment Style	1.256	.035
Self-Disclosure	.171	.697
XM	-.005	.361

Source: Primary data processed, 2024

a. Dependent Variable: Anxiety**Figure 1. Research Model**

Source: Primary data processed, 2024

The first result indicates a significant effect of self-disclosure on anxiety. The higher the level of openness in expressing one's thoughts and feelings, the lower the level of anxiety experienced. Self-disclosure is an important factor that can influence anxiety, as it contributes to strengthening relationships, reducing feelings of guilt, and alleviating anxiety (Greene et al., 2017). As stated by Kahn and Garrison (2009), self-disclosure, whether expressed in written or verbal form, can reduce symptoms of anxiety.

The second result shows a significant and positive effect of attachment style on anxiety. Certain attachment styles can heighten an individual's anxiety. Individuals with anxious-preoccupied, fearful-avoidant, or dismissive-avoidant styles tend to experience fear of rejection, high dependency on their partners, and difficulties in managing emotions (Bartholomew & Horowitz, 1991). Such conditions make individuals more prone to excessive worry when their emotional needs are unmet or when physical distance separates them from their partners. Pepping et al. (2025) found that attachment style has a stronger effect on loneliness than relationship status. Secure individuals display more emotional stability, whereas those with an anxious style are more vulnerable to loneliness. This is closely related to anxiety, as insecure attachment styles may heighten sensitivity to perceived threats in relationships and trigger negative emotional reactions. Therefore, although attachment style significantly influences anxiety, insecure attachment styles can exacerbate it.

The third result indicates that attachment style does not moderate the effect of self-disclosure on anxiety among students in long-distance relationships (LDR). One possible factor influencing this finding is that anxiety in LDRs is more strongly affected by communication quality and trust between partners. As Smith (in Rachelia & Dariyo, 2024) argued, communication quality plays a crucial role in relationships, particularly for young adults engaged in LDRs. Thus, although attachment style is important in relationships, in the context of LDR it does not significantly influence the relationship between self-disclosure and anxiety.

In addition, supplementary Chi-Square analyses were conducted between gender and anxiety, as well as relationship duration and anxiety. The results showed no significant relationship between gender and anxiety. Although McLean and Anderson (2009) suggested that women tend to report higher levels of anxiety compared to men, gender is not a determining factor of anxiety, as other factors exert stronger influence. This is consistent with the findings of Assyifa et al. (2023), who reported no association between gender and anxiety in the context of completing undergraduate theses. In the context of students in LDRs, there

has not yet been research specifically comparing anxiety across genders; therefore, the present finding is considered valid until further studies provide additional evidence.

The analysis of relationship duration and anxiety revealed no significant correlation, consistent with the findings of Minchatul'Ulya et al. (2023), who reported that the length of dating does not influence levels of anxiety or commitment within a relationship. Their study further indicated that variables related to dating, such as relationship quality, satisfaction, and individual factors, play a more decisive role in determining anxiety and commitment in romantic relationships.

CONCLUSION

The study demonstrates that self-disclosure significantly reduces anxiety among university students in long-distance relationships, as openness strengthens trust and emotional support, and eases psychological strain; individuals with insecure attachment styles experience higher anxiety but attachment style itself does not moderate the link between self-disclosure and anxiety, suggesting that communication quality and trust are more influential in LDR contexts. Limitations include a narrow focus on self-disclosure and attachment style, and a sample limited to university students, which restricts broader generalizability. Future research should investigate the roles of communication quality, trust, and social support in mitigating anxiety in long-distance relationships across diverse populations.

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