Research paper

Prediction of Loneliness Feeling based on Attachment Style and Alexithymia with the Mediation of Self-Compassion

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Abstract

This study was conducted to predict loneliness feeling based on attachment style and alexithymia with the mediation of self-compassion. The research method was Structural Equation Modeling. The population included all students aged 18 to 26 years of Islamic Azad University, using the convenience method, 384 people were selected as a sample and responded to the Student Loneliness Feeling Scale, Adult Attachment Scale, Toronto Alexithymia Scale, & Self-Compassion Scale. The data were analyzed with Hayes regression. The findings showed that secure attachment style negatively and insecure attachment styles and alexithymia positively predicted loneliness feeling. Self-compassion negatively predicted loneliness feeling. The secure attachment style positively, and insecure attachment styles and alexithymia negatively predicted self-compassion. Hence, attachment styles and alexithymia predicted loneliness feeling directly and indirectly through self-compassion. The results can be used in designing preventive interventions and providing solutions to reduce loneliness feeling in students.

Keywords: Alexithymia, attachment style, loneliness feeling, self-compassion

Introduction

The need for social connections is one of the important needs at young ages. If young people are unable to successfully connect with others or maintain their relationships, they will have difficulty satisfying their need for belonging and experience loneliness feeling. Since loneliness is considered an important indicator of mental health and can increase the likelihood of physical and mental illnesses (Li, et al., 2024), it seems necessary to investigate the factors affecting it among young people, who experience more loneliness due to being in early adulthood and facing different social conditions, instability of social networks, searching for identity and independence, going to university and living in student environments. A review of the literature showed that attachment styles, emotional alexithymia, and self-compassion affect feelings of loneliness (Shorter, et al., 2022; Borawski, et al., 2022). However, most studies on loneliness have been conducted on adolescents or middle-aged people, and few of them have targeted young students. Also, few studies have studied the mechanisms of the effect of emotional alexithymia on loneliness feeling. Considering the sensitivity of early adolescence, the importance of loneliness in students' psychological well-being, and the impact that attachment

styles, emotional alexithymia, and self-compassion can have on the experience of this feeling, the present study aims to examine the following hypotheses:

- attachment style predicts loneliness.
- attachment style predicts loneliness through the mediation of self-compassion.
- emotional alexithymia predicts loneliness.
- emotional alexithymia predicts loneliness through the mediation of self-compassion.

Method

The research method was Structural Equation Modeling. The research population included all students aged 18 to 26 years of Islamic Azad University, Central Tehran branch in the academic year ٢٠٢٣-٢٠٢٤, using convenience sampling, 384 people were selected as the sample. For sampling, the tools link was sent to some students from different faculties with prior coordination, and they sent it to their classmates in one of the messengers. A number of others responded to instruments by sending the link to the university's scientific and research groups. After reaching the quorum of the sample, the response to the instruments was disabled. The inclusion criteria were being between 18-26 years old and willing to participate in the study, and the exclusion criterion was dissatisfaction with participating. The research data were analyzed with Hayes regression model 4. by SPSS$_{26}$ software

Tools

Student Loneliness Feeling Scale (SLFS): This scale has 24 items and measures the level of loneliness. The reliability of this scale was reported 0.83 and factor analysis showed a single factor (Asher et al., 1984). Cronbach's alpha for loneliness scale was 0.91 in this study.

Adult Attachment Scale (AAS): This scale has 15 items and three subscales of secure, insecure avoidant and anxious insecure attachment style. Reliability with Cronbach's alpha was 0.87 (Hazan & Shaver, 1987) and concurrent validity was r= -0.61- -0.83 (Besharat, 2005). In the present study, Cronbach's alpha coefficient was 0. 74 for secure attachment, 0.76 for anxious attachment, and 0.79 for avoidant attachment.

Toronto Alexithymia Scale (TAS -20): This scale has 20 items and three subscales of difficulty identifying feeling, difficulty describing feeling and externally oriented thinking. Reliability with Cronbach's alpha was 0.81 (Taylor, et al., 1985) and concurrent validity was r= 0.20-0.84 (Bagby et al., 1986). In the present study, Cronbach's alpha coefficient was 0.84.

Self-Compassion Scale (SCS): This scale has 12 items and six subscales. Reliability with Cronbach's alpha was 0.82 and concurrent validity was 0.59 (Neff., 2003). In the present study, Cronbach's alpha coefficient was 0.82.

Results

The regression analysis assumptions including multivariate normality, multicollinearity and independence of residuals were checked, and the results indicated compliance with these assumptions. The correlation results showed a positive and significant relationship between

loneliness feeling with avoidant attachment, anxious attachment and alexithymia, and a negative and significant relationship with secure attachment and self-compassion. Also, the relationship between self-compassion and secure attachment was positive and significant, and with avoidant and anxious attachment and alexithymia was negative and significant. The Hayes regression findings showed that secure attachment style negatively and significantly and avoidant and anxious attachment styles and alexithymia positively and significantly predicted loneliness feeling; Self-compassion negatively and significantly predicted loneliness feeling and secure attachment style positively and significantly, and avoidant and anxious attachment styles and alexithymia negatively and significantly predicted self-compassion.

Also, the bootstrapping results of the mediation effect of self-compassion were significant in the relationship between secure, avoidant and anxious attachment styles and loneliness feeling, as well as in the relationship between alexithymia and loneliness feeling.

Table 1. Bootstrapping indirect effect

Indirect effect	B	Bootstrap SE	Bootstrap 95% CI
Secure attachment ⟶ self-compassion ⟶ Loneliness	-0.10	0.02	-0.15 – -0.06
Total Effect	-0.56	0.04	-0.76 – -0.57
Anxious attachment ⟶ self-compassion ⟶ Loneliness	0.08	0.02	0.04 – 0.13
Total Effect	0.63	0.03	0.49 – 0.62
Avoidant attachment ⟶ self-compassion ⟶ Loneliness	0.10	0.02	0.05 – 0.15
Total Effect	0.61	0.04	0.54 – 0.71
Alexithymia ⟶ self-compassion ⟶ Loneliness	0.10	0.02	0.06 – 0.16
Total Effect	0.58	0.01	0.19 – 0.26

Discussion and Conclusion

The results showed that attachment styles and alexithymia significantly predicted loneliness feeling directly and indirectly through self-compassion. Therefore, secure attachment style and the ability to correctly identify and process emotions and self-compassion can prevent loneliness feeling in students and reduce it if it occurs. Parents can cultivate a healthy and safe attachment style by expressing love and satisfying their children's needs in time, instilling a sense of being loved and helping them to identify and express their emotions correctly, through this, relationships form a suitable society with others and finally experience less loneliness. Therefore, it can be said that the way of emotional regulation and parent's behavior by affecting the kind attitude of the person towards himself, plays a role in preventing or reducing loneliness feeling and thus increasing the mental health of people. The findings can be used in designing preventive interventions and providing practical solutions to reduce the growth of loneliness in Iranian students. As a limitation, the research method was not random and gender differences were not investigated. In future studies, it is suggested to use random sampling methods and to generalize the results better, to conduct research on another sample group and to consider gender differences.

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Conflicts of interest

Authors found no conflict of interests.