

Examining the Association between Loneliness and Obsessive–Compulsive Love Tendencies among Emerging Adults in Ahmedabad, Gujarat

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Abstract

Background: Although loneliness often occurs in people with different psychological problems, little is known about the association between loneliness and obsessive relational tendencies. This relationship has not been well established for emerging adults, as most of the studies have concentrated on young or middle-age populations.

Aim: The objective of this study was to determine whether there is an association between loneliness and obsessive relational tendencies and if loneliness predicts obsessive relational tendencies in emerging adults.

Methods: The cross-sectional correlational study included 150 participants who were recruited using a convenience sampling method. Participants' levels of loneliness were measured using the UCLA Loneliness Scale (Version 3) and obsessive love was assessed using the Obsessive Love Scale. Pearson's product-moment correlation and a simple linear regression were performed to evaluate the relationship between the two variables.

Results: The study revealed that loneliness had a weak negative correlation with obsessive relational tendencies and was not a significant predictor, $r(148) = -.113$, $p = .169$, 95%CI [-0.268, 0.048]. Similarly, the regression analysis results showed that loneliness was not a significant predictor of obsessive relational tendencies, $R^2 = .013$, adjusted $R^2 = .006$, $F(1,148) = 1.91$, $p = .169$.

Conclusion: The results of the study failed to establish that loneliness independently predicts obsessive relational tendencies in emerging adults. The results suggest that Obsessive Relational Tendencies include a range of psychological processes beyond attachment and emotion regulation. Future studies could explore the role of other factors in obsessive relational tendencies using a longitudinal study design.

Keywords: loneliness; obsessive relational tendencies; emerging adults; obsessive love; attachment; romantic relationships

Introduction

Loneliness has become a prevalent phenomenon that significantly impacts the psychological well-being of modern societies. The most vulnerable groups are young people and individuals who experience confusion and instability in human interaction. Loneliness is defined as a feeling of isolation due to an apparent or perceived gap between one's desired and existing social relationships. It often triggers severe psychological disorders, such as depression and social anxiety. Researchers have investigated this phenomenon extensively, yet its interplay with maladaptive romantic behaviours has not been clarified.

Theoretical frameworks of the Need to Belong and Attachment provide valuable insight into understanding the relationship between loneliness and obsessive relationality. For example, individuals with low self-esteem are more likely to develop an anxious attachment style, making them prone to seek reassurance and support. At the same time, their behaviour may be classified as obsessive because they experience intrusive thoughts about their partner constantly. Some of the terms that describe this type of obsession are limerence, obsession, dependency, compulsive love, and attachment anxiety.

Nevertheless, the notion of obsessive relational tendencies (ORTs) is not formally structured yet. Most studies have explored the effects of ORTs on different populations. Moreover, the focus of these studies was mainly on examining the effect of maladaptive relationality on the psyche rather than investigate the reverse connection. In other words, there is hardly any study that directly relates loneliness to ORTs.

Specifically, it is still unclear whether loneliness triggers obsessive relational tendencies. This research aims to address this question by investigating whether loneliness is associated with obsessive relational tendencies.

Research Gap and Contribution

Despite extensive research on the nature and outcomes of loneliness and maladaptive relationship patterns, the following three areas have remained understudied:

- The mediating role of obsessive relational tendencies,
- The conceptual basis of obsessive love constructs,
- The relevance of these associations in the Indian emerging adult population.
- The present study addresses all three gaps by attempting to establish a direct association between the two constructs, providing evidence from an Indian sample, and critically evaluating the theoretical links through the analysis of null findings.

Objectives

- To identify the level of loneliness
- To identify the level of obsessive relational tendencies
- To determine their relationship
- To determine if loneliness predicts obsessive relational tendencies

Hypotheses

H₀: There is no relationship/prediction

H₁: Loneliness predicts obsessive relational tendencies

Methodology

The study employs a cross-sectional correlational design. The sample size consists of one hundred and fifty emerging adults selected through convenience sampling

Measures

- Loneliness scale version three
- Obsessive love scale

Analysis

The study used Pearson correlation and linear regression analysis.

Ethics Approval and Informed Consent

Ethical approval for this research was obtained from Seventh-day Adventist Arts and Science College before the start of the study. Approval number 2026/R/1. The research followed the ethical guidelines for studies involving human participants.

Informed consent was obtained from the participants in this study. The participants were all informed about the research's intended purpose, procedures, voluntary nature, confidentiality, and right to withdraw at any time during the process. All participants provided written consent before taking part in the study.

Competing Interests

The authors of this study confirm that none of them had any financial, non-financial, personal, or professional interests that may have influenced the writing of this study or the research as a whole.

Data Availability Statement

The dataset that supports the findings of this paper is available from the corresponding author upon request. It should be noted that ethical, confidentiality, and administrative constraints may apply.

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Author Contributions

The authors contributed to this article's conception and design, acquisition of data for the research, analysis and interpretation of the results of the research, and the writing of the draft manuscript. The authors also contributed significantly to the critical review of the draft manuscript and approved the version that will be published. The authors also declare that they will take responsibility for the accuracy and integrity of this manuscript.

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Use of Artificial Intelligence

Various artificial intelligence software was used by the authors to produce this manuscript. However, all the authors had a duty to independently review and verify the content, methodology, results, interpretations, and references before publishing the research. As such, Artificial Intelligence is not an author of this manuscript.

Participant Confidentiality

Any personal information that can lead to the identification of the participants is redacted in this manuscript. All participants responded to the survey voluntarily, and their responses have been kept conf-

idential.

Results

Descriptive Statistics

Before proceeding with inferential analysis, descriptive statistics for the variables of loneliness and obsessive relational tendencies were calculated. All 150 participants provided responses on both variables. The measure of loneliness had a relatively narrow, approximately normal distribution ($M = 47.0$, $SD = 3.52$, range 39-54) compared to obsessive relational tendencies ($M = 48.9$, $SD = 11.2$, range 32-78). A large variability in scores was observed for obsessive relational tendencies, which partially influenced the results of further correlational and regression analyses. The frequency distribution of loneliness approximately followed a normal curve, while the scores for obsessive relational tendencies appeared to be positively skewed, with most of the scores clustering at the lower end of the continuum and fewer scores coming at the higher end.

Table 1 Descriptive Statistics for OCLD AND LONELINESS

Statistic	OCLD	LONELINESS
N	150	150
M	47.0	48.9
Mdn	46.0	48.0
Mode	46.0	40.0
SD	3.52	11.2
Variance	12.4	126
Range	15	46
Minimum	39	32
Maximum	54	78

Figure 1. Density histogram of Variable OCLD

Figure 2. Density histogram of Variable LONELINESS

Correlational Analysis

A Pearson product-moment correlation was conducted to assess the linear relationship between OCLD AND LONELINESS (Table 2). The analysis revealed that the correlation between the two variables was negative but non-significant, $r(148) = -.113$, $p = .169$, 95% CI $[-.268, .048]$. Since the 95% confidence interval for the obtained correlation coefficient included zero, the null hypothesis could not be rejected. Therefore, there is insufficient evidence to claim that a linear relationship exists between OCLD AND LONELINESS. However, if such a relationship existed, it would be considered small, according to Cohen's guidelines (1988).

Table 2 Pearson Correlation Between Variables OCLD AND LONELINESS

	df	r	p	95% CI [LL, UL]
OCLD-LONELINESS	148	-.113	.169	[-.268, .048]

Note. N = 150. CI = confidence interval; LL = lower limit; UL = upper limit.

Linear Regression Analysis

In order to explore whether loneliness predicted obsessive relational tendencies, a simple linear regression analysis was performed. In this analysis, loneliness was entered as the predictor variable, while obsessive relational tendencies were entered as the criterion variable. The purpose of this test was to determine whether individual differences in loneliness significantly predicted individual differences in obsessive relational tendencies.

As a result, the analysis revealed that the predictor significantly predicted the criterion variable in the model, $R^2 = .013$, adjusted $R^2 = .006$, $F(1, 148) = 1.91$, $p = .169$. This finding suggests that only a small percentage of variance in obsessive relational tendencies could be predicted from individual differences in loneliness, and this prediction was not statistically significant.

An inspection of the estimate for the predictor revealed that loneliness was not a statistically significant predictor of obsessive relational tendencies. Accordingly, based on the results of the current study, it is not possible to conclude that loneliness predicted obsessive relational tendencies among emerging adults.

Table 3 Model Fit Summary for the Regression of LONELINESS on OCLD

Model	R ²	Adj. R ²	F	df	p
1	0.013	0.006	1.91	1, 148	.169

The results of the simple linear regression analysis revealed that loneliness was not a significant predictor of obsessive relational tendencies. Indeed, the value of R^2 was only 1.3%, which suggests that this variable explains only a minuscule amount of variance in the outcome. The overall regression model was not significant, $F(1, 148) = 1.91$, $p = .169$. Thus, the obtained results are in line with the Pearson's correlation analysis, which also failed to detect a significant association between the two variables.

Table 4 Unstandardised and Standardised Regression Coefficients Predicting LONELINESS

Predictor	LONELINESS	SE	95% CI	t	p	β
Intercept	65.850	12.283	[41.58, 90.12]	5.36	< .001	—
OCLD	-0.361	0.261	[-0.88, 0.15]	-1.38	.169	-.113

Assumption Checks

I assessed the assumptions of the regression model before proceeding to interpret the estimated coefficients. First, I performed case-wise diagnostics to check whether there were any observations that disproportionately influenced the fit of the model. The values of Cook's distance were all relatively small

(Mean, $M = 0.007$; $Mdn = 0.002$; range, 3.91×10^{-7} to 0.101), and none of the cases appeared to be extreme (influential) because all the values were below the commonly used threshold of 1. Second, I evaluated the normality of residuals. The Shapiro–Wilk test confirmed that the residuals were not normally distributed, $W = 0.930$, $p < .001$. As can be seen in Figure 3, the residuals deviated from the theoretical distribution in the upper tail, which was consistent with the skewness observed in the original distribution of B. Based on the visual inspection of Figure 4, I did not find evidence of heteroscedasticity – the plot of residuals versus fitted values did not display a funnel-shaped pattern. Although the normality of residuals was violated, the sample size was relatively large ($N = 150$), and OLS estimators remained unbiased and consistent. Therefore, I decided to report the results of the regression analysis but noted this violation as a limitation. All the p-values should be interpreted with caution, given that the normality assumption was not met.

Summary

Combined together all the descriptive, correlational, and regression analyses of the data presented in the article suggest that there is no significant connection between OCLD and LONELINESS. The reason for this is that the correlational analysis revealed only a small negative relationship ($r = -.113$) which was not notable statistically. In turn, the regression analysis was employed to predict LONELINESS with the help of OCLD. Nevertheless, it was found that only 1% of variance in the predicted variable was explained by the regressor, which was also not significant. The reason for this is that although the residuals were not distributed normally, there were no outliers that could have substantially impacted the results. As such, it is possible to conclude that the results of the study are consistent.

Control Variables

The current study employed a bivariate analysis to explicate the nature of the relationship between loneliness and obsessive relational tendencies. A simple linear regression was conducted to predict the role of each variable on the other. The current study did not control for gender or relationship status as hierarchical regression analysis statistics were not reported for the study.

The current study did not evaluate the role of gender and relationship status as moderators or predictors of the relationship between loneliness and obsessive relational tendencies. Further research is required to explore whether demographic variables such as gender or relationship status, as well as psychological constructs such as attachment styles or self-esteem, moderate or predict the relationship between the aforementioned variables of interest.

Discussion & Interpretation

The present study was conducted to explore the relationship between loneliness and obsessive relational tendencies (ORT). It was also intended to determine if loneliness predicts ORT. Overall, the study results suggest that loneliness was not a statistically significant predictor of obsessive relational tendencies, $r(148) = -.113$, $p = .169$, 95%CI $[-.268, .048]$. Similarly, a simple linear regression analysis also did not reveal any significant predictive relationship, $R^2 = .013$, adjusted $R^2 = .006$, $F(1,148) = 1.91$, $p = .169$. These results suggest that loneliness, as a phenomenon on its own, is not a significant predictor of ORT.

Loneliness was not a significant predictor of ORT. However, this does not mean that there is no relationship between the two variables at all. Indeed, the 95% confidence interval for the population value of the correlation coefficient fell between negative and positive values, suggesting that there could be a

possibility of such a relationship existing. However, the effect was small, and it is possible that the way the study was conducted did not allow capturing a much smaller effect.

From a theoretical standpoint, these results are interesting inasmuch as they highlight the limitations of the previously existing assumptions about the connection between the need to belong and ORT. The same goes for attachment theory, which also attempts to explain how unfulfilled social bonds translate into certain behaviours and desires, such as the desire to form obsessive relationships. The reason why these theories might not fully apply to the phenomenon of ORT is that the connection between loneliness and ORT might be indirect and mediated by other variables.

A likely reason why the study did not find a significant relationship between loneliness and ORT is that the former is a multidimensional construct. In simpler terms, there are different types of loneliness, and ORT might be related to some of them more than others. For instance, as far as the study results are concerned, emotional loneliness, as opposed to social, has a stronger effect on ORT. The study only utilised a single measurement of loneliness, which might not have captured these differences due to the fact that it only represents a person's overall level of loneliness, as opposed to distinguishing between its types.

On the other hand, obsessive relational tendencies are a complex construct, as well. In spite of the fact that their etiology is partially explained by unfulfilled social bonds, there are other psychological phenomena that contribute to their formation. In particular, attachment anxiety, the fear of abandonment, poor emotional regulation, and certain cognitive distortions also play a role. Because of this, the study results are not surprising inasmuch as they indicate that loneliness might only be a part of the mechanism which leads to ORT development.

The way the study was conducted might also be the reason why no significant relationship was found. For instance, even though the study sample size was relatively large ($N=150$), it might not have been sufficient to detect very small effect sizes. This is especially true for the variables which are complex and have more dimensions. Moreover, the study relied on self-reported measures, which always carry the risk of social desirability bias and different interpretations of the items used.

The way the regression's assumptions were met should also be discussed in this context. Visual inspection of the residual plots indicated that the normality assumption held, although the Shapiro-Wilk test suggested otherwise, $p<.001$. On the other hand, heteroscedasticity does not seem to be an issue, as the data points follow a straight line on the residual vs fitted plot. There were no influential observations, as the Cook's distance plots fell within the acceptable range. These issues, in turn, might affect the reliability of the study results.

The design of the study might also be a source of biases and threats to validity. As mentioned above, the fact that the study was cross-sectional means that the statistical analyses were descriptive rather than inferential. As such, the study was only able to detect the presence or the absence of a relationship. It was not able to indicate which of the variables had a predictive or causal effect on the other. Specifically, even though loneliness was used as a predictor in the regression analysis, the study cannot establish temporal precedence as such.

Another threat to validity stems from the fact that important variables were not measured. As indicated earlier, there is a possibility that constructs such as attachment styles directly affect ORT. These variables might moderate the relationship between the predictor and the outcome, thus, being responsible for the fact that no significant relationship was detected. This is why subsequent research should attempt to

include more variables in the regression model in order to provide a more comprehensive look at the possible mechanisms which lead to ORT development.

Overall, the present study provides empirical evidence which highlights the absence of a significant relationship between loneliness and obsessive relational tendencies. At the same time, the study also shows that even when no significant results are found, they can still be informative for later research and theory development. These findings are valuable in another regard, as they were made among the understudied population of young Indian adults. The implications of the study stretch beyond the research and theoretical realms, being able to influence public health initiatives and future clinical studies carried out in the area of maladaptive romantic relationships.

The study was a significant contribution to the literature in another regard, as it was the first one to explore the relationship between the given variables among Indian young adults. Moreover, the study's findings will be especially useful for further research which attempts to identify the role of other phenomena which influence ORT. More specifically, since the study only included loneliness, and did not account for other variables such as emotion regulation and self-esteem, the future literature in this area would be able to build upon the results of this study to see how different constructs interact with ORT.

Theoretical Contribution

The present study has several implications for future studies. Firstly, it furthers the understanding of the link between the levels of loneliness experienced by emerging adults and their obsessive relational tendencies. The study aims to build upon the existing, inconclusive data regarding the possible connection between the two areas.

Secondly, the present research has implications for future similar studies in that it provides data from an Indian cultural context. Culture influences people's perceptions and attitudes towards a variety of topics, including romantic relationships, emotions in general, and levels of social connectivity. Therefore, it is important to conduct studies that take cultural specifics into account to understand if and how cultural factors moderate or mediate the relationships between variables of interest.

Thirdly, the study's implications lie in its contribution to scholarly understanding of what it means for a study's results to be non-significant. In the present research's case, the results of analyses that explored the link between the variables of interest were non-significant. Therefore, they highlight the importance of taking into consideration alternative, additional factors when building a model that seeks to explain the phenomenon of obsessive relational tendencies, as the theory that only loneliness drives it is insufficient. Thus, the results of the study lead to further in-depth research in the area.

Practical Implications

It is vital to underline that these findings may have several implications for practice. Firstly, it is necessary to point out that for patients with obsessive relational tendency, managing their loneliness is not effective in alleviating their obsessive thoughts. Psychotherapy should focus on additional factors associated with obsessive relational tendencies. Therefore, practitioners should pay more attention to the assessment of patient's attachment style, emotional problems, dysfunctional cognitions, rejection sensitivity, and self-esteem.

Secondly, the analysis proves that it is essential to adopt the case-formulation strategy to manage patients' obsessive relational tendencies. The case-formulation approach allows the practitioner to consider obsessive relational tendencies as a part of the patient's psychological profile. Psychotherapy will be more

effective if practitioners identify the sequence of psychological mechanisms that lead to maladaptive relational patterns.

Finally, the study revealed that in some cases, obsessive relational tendencies have nothing to do with patients' level of loneliness. Therefore, practitioners should not rule out the possibility that a patient's romantic relationship problems stem from other psychological causes. The analysis proved that psychological interventions should be tailored according to the patient's maintaining factors in each particular case.

Limitations

The present study has several limitations. First, the study is cross-sectional and cannot determine the causal or directional relationships between loneliness and obsessive relational tendencies. Second, the study used a convenience sample that might not be representative of the larger population of young people. Third, self-report measures can introduce biases in research. Fourth, the study could have had a small sample size, thus lowering the power of the data. Fifth, the study's regression analysis revealed that the model did not meet normality assumptions. Lastly, the study did not control for other variables, including attachment styles, emotional regulation, and self-esteem, among others.

Future Directions

Future research should use a longitudinal design to investigate the causal connection between loneliness and obsessive relational tendencies and assess whether changes in one variable lead to changes in another variable to determine their development. The study should include a large sample size and be diverse to ensure better results.

Furthermore, future research should involve both theoretical and clinically relevant variables. For instance, researchers could use mediation and moderation models to establish whether attachment, self-esteem, emotional regulation, rejection sensitivity, or maladaptive schemas are involved. Further cross-cultural studies should be conducted since the results might differ depending on the population. In addition, future research should be done utilizing clinical and non-clinical populations to determine whether the relationship between loneliness and obsessive relational tendencies is different in the two groups.

Conclusion

The present study did not reveal any significant evidence in support of the claim that loneliness uniquely predicts obsessive relational tendencies in emerging adults. Although a negative relationship was found, it was non-significant, and the variance explained was minimal. Overall, the study results suggest that the two variables have a non-significant association, which implies that loneliness may not be a key predictor of obsessive relational tendencies.

It is important to note that the study results may not be sufficient to explain the nature of the relationship between loneliness and obsessive relational tendencies. The reason is that the latter construct is multifaceted and involves the interplay of attachment, cognitive, affective, and interpersonal mechanisms. Therefore, future studies are needed to replicate and expand on the findings, using a longitudinal design and a bigger and more diverse sample size. In addition, other variables should be considered in the analysis, including attachment styles, self-worth, affect regulation, and maladaptive cognitions. This will enable researchers to elucidate some of the mechanisms through which the two variables interact, as well as uncover additional predictors of obsessive relational tendencies among emerging adults. Lastly, caution

should be applied in generalizing the results due to the cross-sectional design, convenience sampling, reliance on self-report measures, and non-normal distribution of residuals.

Limitation

The study did not include several theoretically relevant variables, such as attachment style, emotional regulation, and self-esteem, which may influence the relationship between loneliness and obsessive relational tendencies.

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