Negative Emotion Expression and Lack of Social Support as Predictors of Adolescent Loneliness

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Objective: This study aimed to examine the predictive roles of negative emotion expression and perceived lack of social support in adolescent loneliness.

Methods and Materials: A correlational descriptive design was used to investigate the relationships between the variables among 380 adolescents in Iraq. Participants were selected using stratified random sampling based on the Morgan and Krejcie table. Standardized self-report instruments were used to measure loneliness, negative emotion expression, and social support. Data were analyzed using SPSS-27, employing Pearson correlation coefficients to explore bivariate associations and multiple linear regression to assess the combined predictive power of the independent variables on loneliness. Assumptions for regression analysis—including normality, linearity, multicollinearity, and homoscedasticity—were checked and met prior to analysis.

Findings: Descriptive statistics indicated moderate levels of loneliness (M = 47.38, SD = 10.27), high levels of negative emotion expression (M = 51.84, SD = 9.61), and low perceived social support (M = 28.42, SD = 6.83). Pearson correlations revealed that loneliness was positively associated with negative emotion expression (r = .47, p < .001) and negatively associated with social support (r = –.59, p < .001). Multiple regression analysis showed that both predictors significantly explained 45% of the variance in loneliness (R² = .45, F(2, 377) = 154.28, p < .001). Social support (β = –.48, p < .001) emerged as a stronger predictor than negative emotion expression (β = .31, p < .001).

Conclusion: The findings highlight the critical role of both emotional and social factors in adolescent loneliness. Specifically, difficulties in expressing negative emotions and low perceived social support significantly contribute to elevated loneliness. Interventions aimed at enhancing emotion expression skills and strengthening social support networks may reduce loneliness and improve adolescent mental health.

Keywords: *Adolescent loneliness; negative emotion expression; social support.*

1. Introduction

Loneliness has increasingly become a salient psychological issue among adolescents, manifesting as a painful and distressing experience resulting from perceived deficiencies in social relationships. Adolescence, a critical developmental stage marked by identity formation, social sensitivity, and emotional volatility, renders individuals particularly vulnerable to feelings of loneliness (Soest et al., 2020). Contemporary research emphasizes that adolescent loneliness is not only a subjective emotional state but also a potent predictor of a wide range of mental health challenges, including anxiety, depression, and even self-harming behavior (Ahn et al., 2025; Raes et al., 2020). Understanding the antecedents of loneliness in youth is essential for developing effective intervention strategies, and two prominent predictors identified in recent literature are the expression of negative emotions and the perceived lack of social support.

The significance of studying loneliness in adolescents has gained renewed urgency during and following the COVID-19 pandemic, which drastically altered social dynamics and increased physical isolation among young people (Benhayoun et al., 2024; Riddleston et al., 2023). Loneliness during adolescence has been linked to not only emotional and psychological distress but also impaired cognitive performance, lowered self-esteem, and increased risk for maladaptive behaviors (Mihaliková & Dědová, 2024; Mueller et al., 2021). Research confirms that loneliness in youth is more than a transient emotional state; it is a chronic condition that can influence long-term developmental trajectories (Hosozawa et al., 2022; Jost et al., 2025).

Among the individual factors contributing to adolescent loneliness, the ability—or lack thereof—to effectively express negative emotions is a crucial yet under-explored determinant. Adolescents often struggle with articulating negative feelings such as sadness, frustration, and anger due to social stigma, developmental limitations, or fear of judgment (Ahn et al., 2025). Studies have shown that suppressing or poorly regulating negative emotions correlates with heightened feelings of social disconnection and psychological distress (Akçay et al., 2022; Zhang et al., 2024). Emotionally inexpressive adolescents may find it challenging to elicit empathy or support from peers, which exacerbates their sense of isolation (Ramos et al., 2024). The inability to process and communicate emotions effectively has also been found to predict loneliness and emotional dysregulation, particularly among those who lack adaptive coping strategies (Ma et al., 2020; Wang et al., 2023).

Parallel to emotional expression, social support—or the perception thereof—emerges as a dominant external buffer against loneliness. Social support involves the availability and quality of interpersonal resources provided by family, peers, and significant others (Bui et al., 2025; Niazi et al., 2024). In adolescence, peer support becomes especially pivotal due to increased social orientation and the need for peer acceptance. Adolescents who perceive lower levels of social support report significantly higher loneliness levels, reduced life satisfaction, and more frequent psychological problems (Ivanović & Ivanović, 2023; Numanović et al., 2023). In contrast, robust social support networks foster emotional security, facilitate adaptive emotion regulation, and act as a protective factor against loneliness (İme, 2024; Ramos et al., 2024).

Compounding these challenges is the reality that social support and emotion expression are not mutually exclusive constructs. Poor emotion expression may diminish the capacity to initiate and sustain meaningful interpersonal connections, while inadequate social support may discourage the sharing of emotional vulnerabilities (Goodfellow et al., 2022; Komissarova & Милованова, 2024). This interactional pattern creates a feedback loop, where emotional isolation reduces opportunities for support, which in turn deepens the experience of loneliness. Evidence from longitudinal and cross-sectional studies indicates that these two variables are independently and jointly associated with adolescent loneliness across cultures and socio-economic backgrounds (Goodfellow et al., 2023; Sedova & Shamardina, 2021).

Several studies underscore the intricate association between negative emotional processes and social factors in determining loneliness. For instance, adolescents who frequently experience and ruminate on negative emotions such as shame and rejection are more likely to feel socially excluded and unsupported (Raes et al., 2020; Riddleston et al., 2023). Likewise, adolescents who perceive their social environment as unsupportive tend to internalize emotions, a phenomenon that contributes to elevated loneliness and potential psychosomatic symptoms (Benhayoun et al., 2024; Mihaliková & Dědová, 2024). Furthermore, adolescents experiencing chronic loneliness have been found to demonstrate less engagement in help-seeking behaviors and fewer efforts to build supportive relationships (Dreslin & Hedrick, 2023; Kahan & Žiaková, 2021).

The influence of individual differences also plays a critical role in how emotion expression and social support relate to loneliness. For example, personality traits such as introversion, neuroticism, or high rejection sensitivity can amplify the effects of negative emotion expression and low perceived support on loneliness (Jost et al., 2025; Ma et al., 2020). Gender and cultural norms may further moderate these relationships. In collectivist cultures, like those found in parts of the Middle East, emotional expression may be discouraged in favor of group harmony, making adolescents more susceptible to internalized loneliness (Ahn et al., 2025; Akçay et al., 2022).

Moreover, digital interactions increasingly mediate social support among adolescents, which has both protective and risk-enhancing implications. While some adolescents turn to online communities to express emotions and receive support, others experience cyberbullying, social comparison, and reduced face-to-face interaction—all of which can intensify loneliness (Goodfellow et al., 2023; Wang et al., 2023). This dual nature of digital social engagement makes it imperative to examine not only the quantity but also the quality of social interactions in understanding adolescent loneliness.

Another important consideration is the role of context-specific stressors, such as academic pressure, familial conflict, or health-related challenges. Adolescents coping with chronic illness, for instance, often report both impaired emotion expression and decreased peer support, leading to elevated levels of loneliness and psychological distress (Ivanović & Ivanović, 2023; Mueller et al., 2021). Similarly, adolescents navigating transitions—such as migration, parental divorce, or school changes—may face disruptions in their support systems and emotional coping mechanisms (Niazi et al., 2024; Sedova & Shamardina, 2021).

Given the psychological, emotional, and social implications of loneliness, especially during adolescence, it is essential to identify its key predictors for effective prevention and intervention. While numerous studies have examined the individual effects of emotion regulation and social support on mental health outcomes, fewer have specifically investigated their joint predictive value for adolescent loneliness (Bui et al., 2025; Ramos et al., 2024). The present study seeks to address this gap by exploring how negative emotion expression and perceived lack of social support independently and collectively predict loneliness among adolescents in Iraq—a context that adds sociocultural depth to the investigation.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a correlational descriptive design to examine the predictive role of negative emotion expression and lack of social support on adolescent loneliness. The target population consisted of adolescents aged 13 to 18 years residing in Iraq. A total of 380 participants were selected using a stratified random sampling method, with the sample size determined based on the Morgan and Krejcie sample size table. Inclusion criteria included being currently enrolled in school, having parental consent to participate, and the ability to understand and complete the questionnaires independently. Exclusion criteria included any diagnosed cognitive or developmental disorders that could interfere with questionnaire completion.

2.2. Measures

2.2.1. Loneliness

To measure adolescent loneliness, the UCLA Loneliness Scale (Version 3) developed by Russell (1996) is widely recognized as a reliable and valid instrument. This scale consists of 20 items that assess the subjective feelings of loneliness and social isolation. Respondents rate each item on a 4-point Likert scale ranging from 1 (Never) to 4 (Often), with higher scores indicating greater perceived loneliness. The scale includes both positively and negatively worded items and yields a total loneliness score without subscales. The UCLA Loneliness Scale has been validated across diverse populations and age groups, including adolescents, and has demonstrated strong internal consistency (Cronbach's alpha typically above .90) and test-retest reliability. Its construct validity is supported by significant correlations with related constructs such as social support, depression, and self-esteem.

2.2.2. Negative Emotion Expression

Negative emotional expression can be effectively assessed using the Emotion Expression Scale for Children (EESC) developed by Penza-Clyve and Zeman (2002). This self-report instrument is composed of 16 items designed to measure children's and adolescents' difficulties in expressing negative emotions, particularly sadness and anger. The scale includes two subscales: Poor Awareness of Emotions and Expressive Reluctance. Each item is rated on a 5-point Likert scale, ranging from 1 (Not at all) to 5 (Extremely true), with

higher scores reflecting greater difficulty in expressing negative emotions. The EESC has been validated in adolescent samples and shows good internal consistency (Cronbach's alpha values typically range from .72 to .83 for subscales), as well as convergent validity with emotion regulation and psychological distress measures.

2.2.3. Social Support

To evaluate perceived social support, the Multidimensional Scale of Perceived Social Support (MSPSS) developed by Zimet et al. (1988) is an appropriate and widely used instrument. The MSPSS includes 12 items and assesses support from three distinct sources: Family, Friends, and Significant Others, with four items per subscale. Participants respond on a 7-point Likert scale, ranging from 1 (Very strongly disagree) to 7 (Very strongly agree), where higher scores reflect greater perceived social support. The MSPSS has demonstrated excellent psychometric properties in adolescent populations, including high internal consistency (Cronbach's alpha typically above .85 for each subscale) and solid factorial validity. Its reliability and validity have been confirmed across various cultural and developmental contexts, making it a robust measure for assessing social support in youth.

2.3. Data Analysis

Data were analyzed using SPSS version 27. Descriptive statistics (mean, standard deviation, frequency, and percentage) were computed for demographic variables. Pearson correlation coefficients were used to examine the relationships between the dependent variable (loneliness) and the independent variables (negative emotion expression and lack of social support). To assess the predictive power of the independent variables on loneliness, a standard multiple linear regression analysis was conducted. Prior to conducting the regression analysis, all relevant statistical assumptions were examined and met, including normality, linearity, homoscedasticity, multicollinearity, and the absence of influential outliers.

3. Findings and Results

The final sample consisted of 380 Iraqi adolescents, including 204 females (53.7%) and 176 males (46.3%). Participants' ages ranged from 13 to 18 years, with the majority being in the 16-year-old group (n = 98; 25.8%), followed by 15-year-olds (n = 82; 21.6%), 17-year-olds (n = 74; 19.5%), 14-year-olds (n = 66; 17.4%), 13-year-olds (n = 40; 10.5%), and 18-year-olds (n = 20; 5.3%). In terms of school level, 58.9% (n = 224) were in secondary school and 41.1% (n = 156) were in high school. All participants completed the full set of study questionnaires without missing data.

Table 1

Descriptive Statistics for Study Variables (N = 380)

Variable	Mean (M)	Standard Deviation (SD)
Loneliness	47.38	10.27
Negative Emotion Expression	51.84	9.61
Social Support	28.42	6.83

The results of descriptive statistics (Table 1) show that the mean score for Loneliness was 47.38 (SD = 10.27), indicating a moderate level of perceived loneliness among adolescents. The average score for Negative Emotion Expression was 51.84 (SD = 9.61), suggesting a relatively high tendency toward emotional suppression. The mean for Social Support was 28.42 (SD = 6.83), which reflects a lower-than-average perception of available social support.

Before performing the regression analysis, all statistical assumptions were evaluated. The normality of residuals was assessed using the Kolmogorov–Smirnov test (p = .072),

indicating a normal distribution. Linearity and homoscedasticity were confirmed through visual inspection of scatterplots and residual plots, which showed no signs of systematic deviation. The Durbin–Watson statistic was 1.93, indicating no significant autocorrelation. Multicollinearity was checked using tolerance and VIF values; tolerance values ranged from 0.71 to 0.83 and VIF values ranged from 1.20 to 1.41, indicating acceptable levels. No influential outliers were detected, as all Cook's distance values were below 1 (maximum Cook's D = 0.21), confirming that no single case unduly influenced the model.

Table 2

Pearson Correlations Between Variables

Variables	1	2	3
1. Loneliness	—		
2. Negative Emotion Expression	.47** (p < .001)	—	
3. Social Support	–.59** (p < .001)	–.42** (p < .001)	—

Table 2 presents the Pearson correlation coefficients between the key variables. Loneliness was positively correlated with Negative Emotion Expression (r = .47, p < .001), indicating that adolescents with greater difficulty expressing emotions tend to report higher loneliness.

Conversely, Social Support was negatively correlated with Loneliness (r = –.59, p < .001), suggesting that greater perceived support is associated with lower loneliness. Additionally, Negative Emotion Expression and Social Support were also negatively correlated (r = –.42, p < .001).

Table 3

Summary of ANOVA for Regression Analysis

Source	Sum of Squares	df	Mean Square	R	R²	Adjusted R²	F	p
Regression	4782.63	2	2391.32	.67	.45	.45	154.28	< .001
Residual	5789.94	377	15.36					
Total	10572.57	379						

The ANOVA summary in Table 3 confirms that the overall regression model is statistically significant, $F(2, 377)$ = 154.28, p < .001. The model explains approximately 45% of the variance in adolescent loneliness (R^2 = .45), indicating a large effect size. This suggests that the combined effects of negative emotion expression and lack of social support significantly predict loneliness.

Table 4

Regression Coefficients for Predicting Loneliness

Predictor	B	SE	β	t	p
Constant	26.41	2.27	—	11.65	< .001
Negative Emotion Expression	0.38	0.06	.31	6.42	< .001
Social Support	–0.72	0.07	–.48	–10.94	< .001

As shown in Table 4, both predictors significantly contributed to the model. Negative Emotion Expression had a significant positive effect on loneliness (B = 0.38, β = .31, p < .001), suggesting that increased difficulties in expressing negative emotions are associated with greater loneliness. In contrast, Social Support had a significant negative effect (B = –0.72, β = –.48, p < .001), indicating that lower perceived support is associated with higher levels of loneliness. The beta coefficient of social support was the largest in the model, emphasizing its stronger predictive power.

4. Discussion and Conclusion

The present study aimed to investigate the predictive role of negative emotion expression and lack of social support in adolescent loneliness. Utilizing a correlational descriptive design, the findings revealed two significant insights. First, both negative emotion expression and perceived lack of social support were positively correlated with loneliness among adolescents. Second, the results of the regression analysis demonstrated that both variables significantly predicted adolescent loneliness, with social support emerging as the stronger predictor in the model. These findings offer critical implications for understanding the social and emotional mechanisms underlying loneliness in adolescence and align with previous literature across various cultural and psychosocial contexts.

The finding that negative emotion expression significantly predicts loneliness confirms the well-established theoretical notion that the inability to process or communicate distressing emotions can lead to emotional

isolation. Adolescents who frequently experience emotions such as sadness, anxiety, or anger but cannot express them effectively are less likely to engage in supportive social interactions, thereby intensifying their perception of being alone (Ahn et al., 2025). These findings are consistent with previous studies indicating that suppression or maladaptive expression of negative affect correlates with increased social disconnection, internalizing symptoms, and vulnerability to loneliness (Wang et al., 2023; Zhang et al., 2024). Particularly during adolescence, when peer relationships play a pivotal role in identity formation and emotional validation, the inability to express emotions in socially acceptable ways can result in reduced peer acceptance and greater emotional detachment (Raes et al., 2020).

Moreover, the strong predictive role of perceived lack of social support aligns with a vast body of research emphasizing social support as a key protective factor against loneliness. Adolescents who perceive a lack of accessible, understanding, and responsive support from family, friends, or other social networks are more likely to experience chronic loneliness (Niazi et al., 2024; Numanović et al., 2023). This is particularly salient in the context of Iraqi adolescents, where cultural norms often emphasize collective affiliation, yet systemic instability and socioeconomic pressures may disrupt interpersonal support structures. The findings echo results from other cultural contexts demonstrating that inadequate peer and familial support significantly correlates with emotional distress and reduced life satisfaction among adolescents (Benhayoun et al., 2024; Ivanović & Ivanović, 2023).

Importantly, the stronger predictive power of social support over negative emotion expression in the regression model suggests that external relational resources may buffer the internal effects of emotional dysregulation. In line with findings from (Ramos et al., 2024), adolescents who perceive themselves as socially supported are more likely to experience emotional relief even in the presence of negative affect. This buffering effect of social support has also been shown to facilitate more adaptive emotion regulation and to mitigate the mental health consequences of stressors such as academic pressure, bullying, or familial conflict (Goodfellow et al., 2022; İme, 2024). Inversely, when social support is absent or perceived as inadequate, the psychological effects of poor emotional expression become more pronounced, leading to intensified feelings of abandonment and emotional alienation (Komissarova & Милованова, 2024).

The interplay between social support and emotional expression also resonates with models of emotional-social functioning in adolescents, which highlight the reciprocal relationship between internal coping processes and external relational dynamics. For example, the results support findings from (Ma et al., 2020), who demonstrated that loneliness operates as a mediator between poor familial communication and problematic behavioral outcomes, with emotional isolation being both a cause and consequence of social disengagement. Adolescents who lack perceived social support may also become more emotionally avoidant, forming a cyclical pattern that perpetuates their loneliness (Goodfellow et al., 2023). Similarly, (Riddleston et al., 2023) found that adolescents who experienced prolonged loneliness during the COVID-19 pandemic reported both diminished social contact and greater emotional difficulty, confirming the dual nature of loneliness as both a social and emotional construct.

Furthermore, the observed patterns affirm prior research suggesting that emotion-related skills are socially constructed and context-dependent. In cultures where open emotional communication is discouraged, adolescents may internalize their feelings, believing that expression signifies weakness or disrupts group harmony. This phenomenon has been documented in collectivist contexts, where adolescents report higher levels of loneliness when emotional expression is culturally inhibited (Akçay et al., 2022; Sedova & Shamardina, 2021). In these environments, peer or adult emotional invalidation may further suppress expression and simultaneously erode perceived social support. The study by (Hosozawa et al., 2022) showed that adolescents who were socially or emotionally neglected were more likely to experience chronic loneliness, even when surrounded by others, suggesting that perceived quality—not quantity—of social support is a key determinant.

The influence of technological and digital interaction is also relevant to the discussion. As adolescents increasingly turn to digital platforms to communicate and seek social connection, the quality of emotional and relational engagement may be compromised. The paradox of feeling lonely despite frequent online interactions has been substantiated in studies showing that digital communication often lacks emotional depth and nonverbal cues, which are essential for fostering emotional support (Dreslin & Hedrick, 2023; Wang et al., 2023). Moreover, excessive screen time and social media use may expose adolescents to negative feedback, comparison, or rejection, all of which

contribute to emotional inhibition and the erosion of perceived support systems (Jost et al., 2025).

In addition, several contextual and situational factors may exacerbate the relationships observed in this study. Adolescents facing social marginalization, health issues, or life transitions—such as migration, academic failure, or parental separation—may be more susceptible to both emotional dysregulation and support erosion. Research shows that adolescents in these situations tend to disengage from social networks and internalize stress, leading to elevated loneliness levels (Mihaliková & Dědová, 2024; Mueller et al., 2021). Similarly, adolescents with heightened emotional sensitivity or introverted temperaments may be doubly vulnerable, as they both underutilize support systems and struggle with emotional expression (Kahan & Žiaková, 2021; Soest et al., 2020).

Collectively, the findings of this study underscore that adolescent loneliness is not merely a reflection of solitude, but a complex emotional experience shaped by the dynamic interaction between internal regulation mechanisms and external relational environments. The observed results provide empirical support for the integration of both emotional expression training and social support enhancement in interventions aimed at reducing loneliness. Programs that teach adolescents to identify, verbalize, and regulate their negative emotions—coupled with those that foster healthy, supportive peer and family relationships—may be particularly effective in buffering against the negative outcomes associated with loneliness (Raes et al., 2020; Ramos et al., 2024).

5.   Limitations & Suggestions

Despite the contributions of this study, several limitations must be acknowledged. First, the correlational nature of the research design limits the ability to infer causality among the variables. Although the relationships between negative emotion expression, social support, and loneliness are significant, the directionality of these effects cannot be definitively established. Second, the study relied on self-report instruments, which may be subject to social desirability bias or inaccurate self-assessment, particularly when addressing sensitive emotional and social topics. Third, the sample was restricted to Iraqi adolescents, which, while valuable in its cultural specificity, limits the generalizability of the findings to other cultural or socio-political contexts. Fourth, the study did not account for potential moderating variables such as gender, socioeconomic status, or existing psychological disorders, which may influence the observed relationships.

Future research should consider employing longitudinal designs to explore the causal relationships among emotional expression, social support, and loneliness over time. Examining how these variables interact during key transitional periods—such as the onset of puberty or changes in family structure—may provide deeper insights into their developmental implications. Additionally, incorporating multi-informant methods, such as reports from parents, teachers, or peers, would enrich the data and reduce reliance on self-report. Future studies could also examine potential moderators or mediators such as resilience, emotion regulation strategies, or cultural values, which may either exacerbate or buffer the relationship between the predictor variables and loneliness. Expanding the research to include diverse cultural contexts would help determine the universality versus cultural specificity of the findings.

The findings of this study highlight the importance of implementing school-based interventions that simultaneously target emotional competence and social connectedness in adolescents. Educators and counselors should consider developing programs that train students in recognizing, labeling, and constructively expressing their negative emotions, as these skills can mitigate emotional isolation. At the same time, peer mentoring, group counseling, and family-based communication initiatives can strengthen perceived social support networks. Mental health professionals working with adolescents should assess both emotional expression habits and the quality of social support systems as part of routine psychosocial evaluations. Ultimately, a holistic approach that addresses both internal and external dimensions of adolescent experience is critical for promoting psychological well-being and reducing the burden of loneliness.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

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

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this article.

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