

The Role of Psychological Distress and Social Adjustment in Predicting Mobile-Based Social Network Addiction Among Adolescents

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ABSTRACT

Purpose: The present study aimed to investigate the role of psychological distress and social adjustment in predicting mobile-based social network addiction among adolescents.

Methods and Materials: This study was fundamental in purpose and employed a descriptive-correlational design. The statistical population consisted of all male and female secondary school students in Dujail City, Salah al-Din Province, Iraq, during the 2025–2026 academic year. Using Cochran's formula and a multistage cluster random sampling method, 383 students were selected to participate in the study. Data were collected using the California Social Adjustment Questionnaire, the Depression Anxiety Stress Scales (DASS-21), and the Mobile-Based Social Network Addiction Questionnaire. Descriptive statistics, Pearson correlation coefficients, and simultaneous multiple regression analyses were conducted using SPSS version 26.

Findings: The results indicated a significant positive relationship between psychological distress and mobile-based social network addiction ($r = .38, p < .01$). Social adjustment was negatively and significantly associated with mobile-based social network addiction ($r = -.27, p < .01$). Furthermore, psychological distress and social adjustment were significantly correlated with each other ($r = -.35, p < .01$). The assumptions of normality and absence of multicollinearity were satisfied before conducting regression analysis. Simultaneous multiple regression analysis demonstrated that psychological distress and social adjustment jointly predicted mobile-based social network addiction, with the overall model being statistically significant, $F(2, 380) = 32.03, p < .001$. The predictor variables explained 19% of the variance in mobile-based social network addiction ($R^2 = .19$). Psychological distress positively predicted social network addiction ($\beta = .13, t = 4.45, p < .001$), whereas social adjustment negatively predicted social network addiction ($\beta = -.16, t = -4.65, p < .001$).

Conclusion: The findings suggest that psychological distress is a significant risk factor, whereas social adjustment serves as a protective factor against mobile-based social network addiction among adolescents. Adolescents experiencing higher levels of depression, anxiety, and stress are more likely to engage excessively in social networking activities, while those with stronger social adjustment skills demonstrate lower vulnerability to problematic social media use.

Keywords: Psychological Distress, Social Adjustment, Social Media Addiction, Mobile-Based Social Networks, Adolescents, Smartphone Addiction, Mental Health.

1. Introduction

Adolescence is a critical developmental period characterized by profound biological, cognitive, emotional, and social transformations that shape individuals' future well-being and psychosocial functioning. During this stage, adolescents increasingly seek autonomy, peer acceptance, identity formation, and social connectedness while simultaneously navigating various developmental challenges. The rapid advancement of digital technologies has significantly altered the social environment in which adolescents develop, making social networking platforms an integral component of daily life. Mobile devices, particularly smartphones, have facilitated continuous access to social media applications, allowing adolescents to communicate, share experiences, seek information, and construct social identities in unprecedented ways. While these technologies provide numerous opportunities for learning, social interaction, and emotional support, concerns have emerged regarding excessive and maladaptive patterns of use. Consequently, mobile-based social network addiction has become an increasingly important public health issue among adolescents worldwide (Amirthalingam & Khera, 2024; Haddock et al., 2022; Wang, 2023). The growing prevalence of problematic social media use has prompted researchers to investigate the psychological and social factors that contribute to the development and maintenance of addictive online behaviors among young people (Ahmead et al., 2025; Doan et al., 2022; Surathkumaar et al., 2025).

Mobile-based social network addiction refers to a pattern of excessive, compulsive, and poorly controlled engagement with social networking platforms through mobile devices, resulting in impairment in personal, social, academic, or emotional functioning. Unlike ordinary social media use, addictive use is characterized by symptoms such as preoccupation, loss of control, withdrawal-like experiences when access is restricted, excessive time investment, and continued use despite negative consequences. Contemporary theoretical models conceptualize social media addiction as a behavioral addiction that shares several characteristics with substance-related and other non-substance-related addictive disorders. Researchers have reported that adolescents represent one of the most vulnerable groups due to their developmental sensitivity to social rewards, peer approval, emotional fluctuations, and identity exploration processes (Amirthalingam & Khera, 2024; Brand et al., 2024; García-Manglano et al., 2021). Recent epidemiological studies have demonstrated increasing rates of problematic social media

use among adolescents and young adults, suggesting that social media addiction constitutes a significant challenge for educational systems, families, and mental health professionals (Ahmead et al., 2025; Surathkumaar et al., 2025; Wang, 2023). Furthermore, systematic reviews indicate that excessive social media engagement is associated with a broad range of adverse psychosocial outcomes, including emotional distress, interpersonal difficulties, academic impairment, reduced life satisfaction, and diminished psychological well-being (Awopetu et al., 2024; Burgess, 2025; Cabezas-Klinger, 2025).

One of the psychological variables that has attracted substantial attention in this context is psychological distress. Psychological distress is generally defined as a state of emotional suffering characterized by symptoms of depression, anxiety, stress, and emotional dysregulation. Adolescents experiencing elevated levels of psychological distress often encounter difficulties in coping with daily challenges and may seek alternative mechanisms to alleviate negative emotional states. Social networking platforms may provide immediate opportunities for distraction, emotional escape, social reassurance, and validation, thereby increasing the likelihood of excessive use among psychologically distressed individuals. The compensatory internet use framework suggests that individuals who experience emotional discomfort may engage in excessive online activities as a means of regulating negative emotions or compensating for unmet psychological needs. Consequently, psychological distress may function as both a precursor and consequence of problematic social media engagement, creating a reciprocal cycle that perpetuates maladaptive behavior (Conley et al., 2023; Lin & Guo, 2024; Mei & Wang, 2024). Numerous empirical investigations have supported this proposition by demonstrating significant associations between symptoms of anxiety, depression, stress, and addictive patterns of social media use among adolescents and young adults (Draženović et al., 2023; Marciano et al., 2022; Prasad et al., 2023). Similarly, studies examining smartphone addiction have found that emotionally distressed adolescents are more likely to engage in excessive digital behaviors, suggesting that psychological vulnerability constitutes an important risk factor for technology-related addictions (Burgess, 2025; Marano et al., 2025; Wang, 2023).

Recent literature has increasingly emphasized the relationship between social media use and adolescent mental health outcomes. Meta-analytic and systematic review

evidence suggests that problematic social media use is associated with elevated levels of depression, anxiety, loneliness, emotional instability, and diminished psychological well-being (Awopetu et al., 2024; Cabezas-Klinger, 2025; Marciano et al., 2022). Research conducted during and after the COVID-19 pandemic further highlighted how increased reliance on digital communication platforms contributed to changes in emotional functioning among adolescents and students (Draženović et al., 2023; Yu & Du, 2022). Moreover, scholars have reported that prolonged exposure to social comparison, cyberbullying, unrealistic social standards, and fear of missing out may exacerbate emotional distress and contribute to the development of addictive social networking behaviors (Bottaro & Faraci, 2022; Falcón-Linares et al., 2023; Marano et al., 2025). Studies have also suggested that adolescents who experience internalizing difficulties are particularly susceptible to problematic online engagement because digital environments may offer temporary relief from psychological discomfort while simultaneously reinforcing avoidance-oriented coping strategies (Brand et al., 2024; Conley et al., 2023; Prasad et al., 2023).

In addition to psychological distress, social adjustment represents another important factor that may influence adolescents' vulnerability to mobile-based social network addiction. Social adjustment refers to an individual's ability to establish satisfying interpersonal relationships, conform to social norms, fulfill social roles effectively, and adapt successfully to social environments. Adolescents who demonstrate strong social adjustment skills typically possess effective communication abilities, positive peer relationships, family support, and adaptive coping strategies. In contrast, socially maladjusted adolescents may experience interpersonal difficulties, social isolation, rejection, or diminished social competence, increasing their likelihood of seeking alternative forms of social interaction through online platforms. From a developmental perspective, social networking sites may serve as compensatory environments for adolescents who struggle to achieve meaningful social connections in offline settings (Campione-Barr et al., 2024; Knowles & Danzi, 2025; Liu et al., 2024). Accordingly, deficiencies in social adjustment may increase the attractiveness of virtual social interactions and contribute to excessive dependence on digital communication technologies.

Family and social contexts play a central role in shaping adolescents' adjustment and technology-use behaviors. Research has consistently demonstrated that supportive

family relationships, effective parental monitoring, healthy peer interactions, and positive social environments contribute to adaptive adolescent development and reduce engagement in problematic behaviors (Campione-Barr et al., 2024; García-Mangano et al., 2021; Liu et al., 2024). Conversely, family conflict, inadequate social support, and poor interpersonal functioning have been associated with increased psychological distress and problematic digital media use. Adolescents who lack supportive offline relationships may become increasingly dependent on social networking platforms to satisfy their social and emotional needs (Knowles & Danzi, 2025; Prochnow et al., 2025; Rutte et al., 2024). Research examining online social support has shown that digital environments can provide meaningful emotional connections; however, excessive reliance on virtual relationships may sometimes undermine the development of healthy offline social competencies (Knowles & Danzi, 2025; Prochnow et al., 2025). Therefore, social adjustment may function as both a protective and risk factor depending on the quality and balance of adolescents' online and offline social experiences.

Although much of the literature emphasizes the harmful consequences of excessive social media use, researchers have also highlighted the potential benefits of digital technologies when used appropriately. Social networking platforms can facilitate social connectedness, information sharing, emotional expression, identity exploration, and access to supportive communities (Haddock et al., 2022; Prochnow et al., 2025; Yu & Du, 2022). Positive digital engagement may contribute to social learning and psychological well-being under certain conditions. However, the distinction between adaptive and maladaptive use remains critical. Evidence suggests that when online engagement becomes excessive, compulsive, or emotionally dependent, the protective benefits diminish and negative outcomes become more prominent (Brand et al., 2024; Cabezas-Klinger, 2025; Marano et al., 2025). This dual nature of social media highlights the importance of identifying individual differences that influence adolescents' responses to digital environments.

Researchers have increasingly explored factors that may protect adolescents against problematic social media use and its adverse consequences. Protective variables such as self-compassion, mindfulness, resilience, social support, and adaptive coping have demonstrated promising associations with reduced technology addiction and improved psychological well-being (Falcón-Linares et al., 2023; Manjanatha et al., 2025; Samanta et al., 2024). Intervention-

focused reviews have further suggested that prevention and treatment programs targeting emotional regulation, social competence, and healthy technology habits may effectively reduce problematic internet and social media use among adolescents (Cañas & Estévez, 2021). These findings underscore the importance of examining both vulnerability and protective factors when investigating the determinants of social media addiction. In particular, psychological distress may represent a significant vulnerability factor, whereas social adjustment may operate as a protective mechanism that reduces adolescents' reliance on virtual environments for emotional and social fulfillment.

Despite the growing body of international research, relatively limited evidence is available regarding the simultaneous contribution of psychological distress and social adjustment to mobile-based social network addiction among adolescents in Middle Eastern contexts. Most previous studies have examined either psychological variables or social factors independently, while fewer investigations have explored their combined predictive value within a comprehensive framework. Furthermore, cultural differences in family structures, social relationships, educational environments, and patterns of technology use necessitate context-specific investigations to better understand adolescent behavior. Given the increasing prevalence of smartphone ownership and social media engagement among adolescents, identifying key psychological and social determinants of addictive use is essential for designing effective prevention and intervention strategies (Akhlaq et al., 2022; Doan et al., 2022; Kaur et al., 2023). Understanding how psychological distress and social adjustment interact with mobile-based social network addiction may provide valuable insights for educators, mental health practitioners, families, and policymakers seeking to promote healthy adolescent development in an increasingly digital world.

Therefore, the present study aimed to investigate the role of psychological distress and social adjustment in predicting mobile-based social network addiction among adolescents.

2. Methods and Materials

2.1. Study Design and Participants

The present study was fundamental in terms of its objective and employed a descriptive-correlational research design. The study population consisted of all male and female secondary school students enrolled in schools in Dujail City, Salah al-Din Province, Iraq, during the 2025–

2026 academic year. The total population was estimated to include approximately 16,500 students. Based on Cochran's sample size formula, a sample of 375 students was selected for participation in the study. A multistage cluster random sampling procedure was employed to ensure adequate representation of students from different educational districts. Initially, two educational districts were randomly selected from the various districts within Dujail City. Subsequently, four schools were randomly chosen from each selected district, resulting in a total of eight schools. From each school, three classes were randomly selected, and all students within the selected classes who expressed willingness to participate were included in the study. Prior to data collection, official permissions were obtained from the University of Tabriz and the Dujail Education Directorate. After the necessary administrative coordination with school principals and teachers, the selected schools were visited, and participants completed the research questionnaires under standardized conditions. Participation was voluntary, and confidentiality and anonymity of responses were ensured throughout the study.

2.2. Measures

California Social Adjustment Questionnaire: Social adjustment was assessed using the California Social Adjustment Questionnaire developed by Clark and colleagues in 1953. This instrument is one of the most widely used measures for evaluating social adjustment and consists of 90 items designed to assess six dimensions of social adjustment, including social standards, social skills, antisocial tendencies, family relationships, educational relationships, and social relationships. Responses are recorded using a three-point Likert-type scale ranging from "Never" to "Sometimes" and "Always." Higher scores indicate greater levels of social adjustment. Previous studies have demonstrated the instrument's strong psychometric properties. Khodayarifard reported an internal consistency coefficient of 0.98 using Cronbach's alpha, indicating excellent reliability. Furthermore, John, Burt, and Stephens reported a test-retest reliability coefficient of 0.54 and an internal consistency coefficient of 0.81 using the Kuder-Richardson Formula 20, supporting the questionnaire's reliability and suitability for research purposes. The questionnaire has been extensively used in adolescent populations and has demonstrated satisfactory validity and reliability across different cultural contexts.

Depression Anxiety Stress Scales (DASS-21): Psychological distress was measured using the Depression Anxiety Stress Scales-21 (DASS-21), developed by Lovibond and Lovibond in 1995. The DASS-21 is a self-report instrument consisting of 21 items designed to assess three negative emotional states: depression, anxiety, and stress. Each subscale contains seven items. Participants respond to each item on a four-point Likert scale ranging from 0 ("Did not apply to me at all") to 3 ("Applied to me very much or most of the time"). Higher scores reflect greater levels of psychological distress. Specifically, items 1, 6, 8, 11, 12, 14, and 18 assess stress; items 2, 4, 7, 9, 15, 19, and 20 assess depression; and items 3, 5, 10, 13, 16, 17, and 21 assess anxiety. The DASS-21 has demonstrated strong psychometric characteristics in numerous studies. Abolghasemi and Narimani reported Cronbach's alpha coefficients of 0.81 for depression, 0.73 for anxiety, and 0.85 for stress. Criterion-related validity was established through significant correlations with the Beck Depression Inventory, yielding coefficients of 0.66 for depression, 0.67 for anxiety, and 0.49 for stress. These findings support the validity and reliability of the DASS-21 as a comprehensive measure of psychological distress among adolescents.

Mobile-Based Social Network Addiction Questionnaire: Mobile-based social network addiction was assessed using the Mobile-Based Social Network Addiction Questionnaire developed by Khajeh Amiri and colleagues in 2016. The questionnaire contains 23 items and evaluates four major dimensions of social network addiction: personal functioning, time management, self-control, and social relationships. Responses are scored on a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). Higher total scores indicate greater levels of addiction to mobile-based social networking platforms. The instrument was specifically developed to assess problematic social network use among adolescents and young adults in contemporary digital environments. Evidence for content and face validity was established through expert evaluation

by ten university faculty members. Reliability analysis conducted by the developers revealed a Cronbach's alpha coefficient of 0.92, indicating excellent internal consistency. The questionnaire has been shown to possess adequate psychometric properties and is considered an appropriate instrument for assessing social network addiction among adolescent populations.

2.3. Data Analysis

Data analysis was conducted using both descriptive and inferential statistical techniques. Descriptive statistics, including frequency distributions, percentages, means, and standard deviations, were calculated to summarize participants' demographic characteristics and study variables. Inferential statistical analyses were employed to examine the relationships among psychological distress, social adjustment, and mobile-based social network addiction. Pearson's correlation coefficient was used to assess the strength and direction of bivariate relationships among the study variables. Furthermore, simultaneous multiple regression analysis was conducted to determine the predictive roles of psychological distress and social adjustment in explaining variance in mobile-based social network addiction among adolescents. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS), version 26. Statistical significance was evaluated at the conventional significance level of 0.05.

3. Findings and Results

A total of 383 secondary school students (male and female) from Dujail City, Salah al-Din Province, Iraq, participated in the present study. The collected data were analyzed using descriptive and inferential statistical methods. Descriptive statistics, including means and standard deviations, were first calculated for the study variables. The results are presented in Table 1.

Table 1

Descriptive Statistics of the Study Variables

Variable	N	Mean	SD
Psychological Distress	383	32.03	5.54
Social Adjustment	383	88.78	12.26
Mobile-Based Social Network Addiction	383	89.21	13.73

As shown in Table 1, the mean score of psychological distress among the participants was 32.03 (SD = 5.54),

indicating a moderate level of emotional distress in the sample. The mean score of social adjustment was 88.78 (SD

= 12.26), suggesting relatively favorable social adaptation among students. Furthermore, the mean score of mobile-based social network addiction was 89.21 (SD = 13.73), indicating a moderate-to-high tendency toward problematic use of mobile social networking platforms. The standard deviations indicate acceptable variability across all study

variables, supporting the suitability of the data for subsequent inferential analyses.

To examine the relationships among the study variables, Pearson correlation coefficients were calculated. The correlation matrix is presented in Table 2.

Table 2

Correlation Matrix of the Study Variables

Variables	1	2	3
1. Mobile-Based Social Network Addiction	1		
2. Social Adjustment	-0.27**	1	
3. Psychological Distress	0.38**	-0.35**	1

The results presented in Table 2 indicate significant relationships among all study variables. Psychological distress was positively and significantly associated with mobile-based social network addiction ($r = .38, p < .01$), suggesting that adolescents experiencing higher levels of psychological distress tended to report greater addiction to mobile-based social networking platforms. Social adjustment was negatively and significantly related to mobile-based social network addiction ($r = -.27, p < .01$), indicating that students with better social adjustment were less likely to exhibit problematic social network use. In addition, psychological distress was negatively and significantly correlated with social adjustment ($r = -.35, p < .01$), demonstrating that adolescents with higher levels of psychological distress generally reported lower levels of social adjustment.

Prior to conducting multiple regression analysis, the underlying statistical assumptions were examined. The interval-level measurement assumption was considered

satisfied because all study variables were assessed using standardized psychometric instruments with continuous scoring systems. Univariate normality was assessed through skewness and kurtosis indices. The skewness values ranged from -0.93 to 0.81, while kurtosis values ranged from -1.18 to 0.94, all of which fell within acceptable ranges for normal distribution. Multicollinearity was evaluated using Variance Inflation Factor (VIF) and Tolerance statistics. The VIF values ranged from 1.12 to 1.81, remaining well below the critical threshold of 2.00, whereas Tolerance values ranged from 0.81 to 0.88, exceeding the minimum acceptable value of 0.05. Therefore, the assumptions of normality and absence of multicollinearity were met, indicating that the data were suitable for multiple regression analysis.

To determine the predictive roles of psychological distress and social adjustment in explaining mobile-based social network addiction, a simultaneous multiple regression analysis was conducted. The results are presented in Table 3.

Table 3

Simultaneous Multiple Regression Analysis Predicting Mobile-Based Social Network Addiction

Predictor	B	SE	Beta	t	p
Constant	3.25	0.50	—	6.16	< .001
Psychological Distress	0.03	0.005	0.13	4.45	< .001
Social Adjustment	-0.06	0.007	-0.16	-4.65	< .001
Model Statistics				Value	
R				0.32	
R ²				0.19	
Adjusted R ²				0.19	
F(2, 380)				32.03	
p				< .001	

The results of the regression analysis demonstrated that the overall model was statistically significant, $F(2, 380) =$

32.03, $p < .001$. The multiple correlation coefficient was 0.32, indicating a moderate relationship between the

predictor variables and mobile-based social network addiction. The coefficient of determination ($R^2 = 0.19$) revealed that psychological distress and social adjustment jointly explained 19% of the variance in mobile-based social network addiction among adolescents. Examination of the standardized regression coefficients indicated that psychological distress was a significant positive predictor of mobile-based social network addiction ($\beta = 0.13$, $t = 4.45$, $p < .001$). This finding suggests that higher levels of psychological distress were associated with increased levels of social network addiction. In contrast, social adjustment emerged as a significant negative predictor of mobile-based social network addiction ($\beta = -0.16$, $t = -4.65$, $p < .001$), indicating that adolescents with better social adjustment were less likely to develop problematic patterns of social network use. Comparatively, social adjustment exhibited a slightly stronger predictive effect than psychological distress, as reflected by its larger standardized beta coefficient. Overall, the findings suggest that both psychological distress and social adjustment play significant roles in predicting mobile-based social network addiction among adolescents, with socially adjusted adolescents showing lower vulnerability to excessive social networking behavior.

4. Discussion and Conclusion

The present study aimed to investigate the role of psychological distress and social adjustment in predicting mobile-based social network addiction among adolescents. The findings revealed that psychological distress was positively and significantly associated with mobile-based social network addiction, whereas social adjustment demonstrated a significant negative relationship with this outcome. Furthermore, the results of the multiple regression analysis indicated that psychological distress and social adjustment jointly accounted for 19% of the variance in mobile-based social network addiction. Both variables emerged as significant predictors, with psychological distress positively predicting addiction and social adjustment negatively predicting it. These findings suggest that adolescents experiencing greater emotional difficulties are more vulnerable to problematic social media use, whereas those with stronger social adjustment skills appear less susceptible to developing addictive patterns of engagement with mobile-based social networking platforms.

One of the most important findings of the present study was the positive relationship between psychological distress

and mobile-based social network addiction. Adolescents reporting higher levels of depression, anxiety, and stress were more likely to exhibit problematic and excessive engagement with social networking applications. This finding is consistent with a growing body of literature indicating that emotional difficulties are closely linked to problematic technology use and digital addictions (Draženić et al., 2023; Marciano et al., 2022; Prasad et al., 2023). The observed relationship can be interpreted through the compensatory internet use framework, which suggests that individuals experiencing emotional distress often turn to digital environments to alleviate negative emotions, escape daily stressors, and seek temporary relief from psychological discomfort. Social networking platforms offer immediate access to social interaction, entertainment, distraction, and validation, making them particularly attractive to emotionally vulnerable adolescents. As a result, distressed adolescents may gradually develop excessive dependence on these platforms as a coping mechanism.

The findings also align with research demonstrating that symptoms of depression and anxiety frequently coexist with problematic social media use among young people (Awopetu et al., 2024; Burgess, 2025; Cabezas-Klinger, 2025). Adolescents who experience feelings of loneliness, sadness, uncertainty, or emotional instability may find digital environments more manageable than face-to-face interactions because online communication often provides greater control over self-presentation and social engagement. This perception of safety and accessibility may reinforce repeated use and contribute to addictive behavioral patterns. Moreover, exposure to social comparison processes, idealized portrayals of peers, and constant feedback mechanisms within social networking platforms may intensify existing emotional difficulties, thereby creating a cyclical relationship between psychological distress and social media addiction (Brand et al., 2024; Falcón-Linares et al., 2023; Marano et al., 2025). Consequently, adolescents experiencing emotional problems may increasingly rely on social media, while excessive social media use simultaneously exacerbates their psychological distress.

The significant predictive role of psychological distress identified in this study is also consistent with previous investigations examining smartphone and social media addiction among adolescents and young adults (Ahmead et al., 2025; Surathkumaar et al., 2025; Wang, 2023). These studies have repeatedly demonstrated that individuals with elevated levels of emotional distress are more likely to

engage in excessive digital behaviors. The present findings extend this literature by demonstrating that psychological distress remains a significant predictor even when social adjustment is simultaneously considered. This suggests that emotional functioning represents an independent risk factor for mobile-based social network addiction. Adolescents struggling with stress, anxiety, or depressive symptoms may perceive social media as an effective strategy for mood regulation; however, over time, this reliance may reduce opportunities for developing healthier coping mechanisms and increase dependence on online environments.

Another important finding was the significant negative relationship between social adjustment and mobile-based social network addiction. Adolescents with higher levels of social adjustment reported lower levels of addiction to mobile-based social networking platforms. This finding supports theoretical perspectives emphasizing the protective role of adaptive social functioning during adolescence. Socially adjusted adolescents typically possess stronger interpersonal skills, more satisfying peer relationships, better communication abilities, and healthier connections with family members. These characteristics may reduce the need to seek excessive social gratification through virtual environments because important social and emotional needs are already being fulfilled through offline relationships. Consequently, adolescents who are socially well-adjusted may use social media as a complementary rather than compensatory tool for social interaction.

The present finding is consistent with studies highlighting the importance of family relationships, social support, and interpersonal competence in promoting healthy adolescent development (Campione-Barr et al., 2024; Knowles & Danzi, 2025; Liu et al., 2024). Previous research has shown that adolescents who experience positive family functioning and supportive peer relationships are less likely to engage in problematic digital behaviors because they possess alternative sources of emotional support and social connection. In contrast, adolescents who experience difficulties in social adaptation may use social networking platforms to compensate for deficits in offline relationships. Social media environments offer opportunities to establish connections, receive validation, and experiment with social identities without the challenges associated with direct interpersonal interactions. While these opportunities may provide short-term benefits, excessive dependence on virtual interactions may ultimately hinder the development of essential social competencies and reinforce maladaptive patterns of behavior.

The negative association between social adjustment and social media addiction also corresponds with studies emphasizing the role of social and environmental factors in adolescent digital behavior (García-Manglano et al., 2021; Prochnow et al., 2025; Rutte et al., 2024). Adolescents who struggle with social integration, peer acceptance, or interpersonal communication may perceive online environments as more accessible and rewarding than face-to-face social contexts. This tendency may increase their vulnerability to excessive engagement with social networking platforms. Conversely, adolescents with strong social adjustment skills are more likely to participate in meaningful offline activities, maintain supportive social networks, and regulate their technology use effectively. These characteristics may protect them from developing compulsive patterns of social media engagement.

The regression findings demonstrated that psychological distress and social adjustment jointly explained a meaningful proportion of variance in mobile-based social network addiction. Although the explained variance was moderate, the results indicate that both emotional and social factors play important roles in understanding adolescents' technology-related behaviors. This finding supports multidimensional models of social media addiction, which emphasize that problematic digital engagement arises from the interaction of psychological vulnerabilities and social contextual influences rather than a single causal factor (Amirthalingam & Khera, 2024; Brand et al., 2024; Cabezas-Klinger, 2025). The simultaneous significance of both predictors suggests that interventions aimed at reducing social media addiction among adolescents should address not only emotional difficulties but also social functioning and interpersonal adjustment.

The findings can also be interpreted within broader developmental frameworks emphasizing the interconnected nature of emotional and social development during adolescence. Psychological distress may undermine adolescents' ability to establish and maintain healthy relationships, while poor social adjustment may increase vulnerability to emotional difficulties. This reciprocal relationship may indirectly contribute to excessive social media use as adolescents seek alternative sources of support and validation in online environments. The significant negative correlation observed between psychological distress and social adjustment in the present study supports this interpretation and highlights the importance of considering these variables together rather than independently. Adolescents experiencing both elevated

distress and poor social adjustment may represent a particularly high-risk group for developing problematic social networking behaviors.

Furthermore, the findings align with contemporary research emphasizing that social media addiction should be understood within a broader psychosocial context rather than as a purely technological phenomenon (Akhlaq et al., 2022; Awopetu et al., 2024; Doan et al., 2022). While technological features such as accessibility, instant feedback, and algorithmic personalization undoubtedly contribute to excessive use, individual psychological characteristics and social experiences appear equally important. The present study contributes to this growing body of evidence by demonstrating that adolescents' emotional well-being and social functioning significantly influence their likelihood of developing addictive patterns of social media use.

The current findings also have implications for prevention and intervention efforts. Recent reviews have highlighted the effectiveness of programs focusing on emotional regulation, mindfulness, resilience, and healthy technology habits in reducing problematic internet and social media use (Cañas & Estévez, 2021; Manjanatha et al., 2025; Samanta et al., 2024). The present results suggest that enhancing social adjustment skills may represent another valuable target for intervention. Programs designed to improve communication skills, peer relationships, family interactions, and social competence may indirectly reduce adolescents' dependence on social networking platforms. Similarly, interventions aimed at reducing psychological distress through counseling, emotional support, and mental health promotion may help prevent the development of addictive digital behaviors.

Overall, the findings of this study reinforce the view that mobile-based social network addiction among adolescents is a multifaceted phenomenon influenced by both emotional and social determinants. Psychological distress appears to increase vulnerability to excessive social media use, whereas social adjustment functions as a protective factor that reduces the likelihood of addiction. These findings underscore the importance of adopting comprehensive approaches that simultaneously address mental health and social functioning when seeking to understand and reduce problematic social networking behaviors among adolescents.

Several limitations should be considered when interpreting the findings of the present study. First, the cross-sectional and correlational design does not allow for causal

conclusions regarding the relationships among psychological distress, social adjustment, and mobile-based social network addiction. Second, all data were collected through self-report questionnaires, which may be influenced by social desirability bias, recall errors, or response tendencies. Third, the study was conducted exclusively among secondary school students in Dujail City, Iraq, which may limit the generalizability of the findings to adolescents from other regions, cultures, or educational contexts. Finally, other potentially influential variables such as personality traits, parental monitoring, peer influence, academic stress, and socioeconomic status were not examined and may have contributed additional explanatory power.

Future studies should employ longitudinal designs to investigate the causal relationships between psychological distress, social adjustment, and social media addiction over time. Researchers are also encouraged to explore potential mediating and moderating variables such as resilience, self-esteem, emotional regulation, family functioning, and peer support. Comparative studies across different cultural contexts and age groups would further enhance understanding of the universality and specificity of these relationships. Additionally, qualitative investigations may provide deeper insights into adolescents' subjective experiences of social media use and the psychological processes underlying addictive behaviors.

Educational authorities, school counselors, psychologists, and parents should collaborate to develop comprehensive prevention programs aimed at promoting healthy social media use among adolescents. Schools can implement psychoeducational workshops focused on emotional regulation, stress management, responsible technology use, and interpersonal skills development. Mental health screening programs may help identify adolescents experiencing elevated psychological distress before problematic digital behaviors become entrenched. Parents should be encouraged to foster supportive family environments, maintain open communication with their children, and establish balanced guidelines for technology use. Strengthening adolescents' social adjustment skills through extracurricular activities, peer engagement opportunities, and social competence training may also reduce reliance on social networking platforms and promote healthier developmental outcomes.

Authors' Contributions

All authors significantly contributed to this study.

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 authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

References

- Ahmead, M., Maqboul, E., Alshawish, E., & Dweib, M. (2025). The Prevalence of Smartphone Addiction and Its Related Risk Factors Among Palestinian High School Students: A Cross-Sectional Study. *Frontiers in Psychiatry*, 16. <https://doi.org/10.3389/fpsyt.2025.1636080>
- Akhlaq, B., Iqbal, A., & Ikram, A. (2022). Assessment of Psychosocial Issues Due to Social Media Addiction Among University Students and Their Relationship With Academic Grades. *Pakistan Journal of Social Research*, 04(03), 1020--1031. <https://doi.org/10.52567/pjsr.v4i03.1283>
- Amirthalingam, J., & Khera, A. (2024). Understanding Social Media Addiction: A Deep Dive. *Cureus*. <https://doi.org/10.7759/cureus.72499>
- Awopetu, R. G., Olabimitan, B. A., Kolawole, S. O., Newton, R., Odok, A. A., & Awopetu, A. V. (2024). The Systematic Review of Social Media Addiction and Mental Health of Nigerian University Students: The Good, the Bad and the Ugly. *European Journal of Theoretical and Applied Sciences*, 2(1), 767-788. [https://doi.org/10.59324/ejtas.2024.2\(1\).69](https://doi.org/10.59324/ejtas.2024.2(1).69)
- Bottaro, R., & Faraci, P. (2022). The Use of Social Networking Sites and Its Impact on Adolescents' Emotional Well-Being: A Scoping Review. *Current Addiction Reports*, 9(4), 518-539. <https://doi.org/10.1007/s40429-022-00445-4>
- Brand, C., Fochesatto, C. F., Gaya, A. R., Schuch, F. B., & López-Gil, J. F. (2024). Scrolling Through Adolescence: Unveiling the Relationship of the Use of Social Networks and Its Addictive Behavior With Psychosocial Health. <https://doi.org/10.21203/rs.3.rs-4481552/v1>
- Burgess, K. (2025). The Decline in Adolescents' Mental Health With the Rise of Social Media: A Narrative Review. *Creative Nursing*, 31(2), 119-126. <https://doi.org/10.1177/10784535251328925>
- Cabezas-Klinger, H. (2025). Associations Between Social Media Use and Mental Disorders in Adolescents and Young Adults: A Systematic Review and Meta-Analysis of Recent Evidence. *Behavioral Sciences*, 15(11), 1450. <https://doi.org/10.3390/bs15111450>
- Campione-Barr, N., Skinner, A. T., Moeller, K., Cui, L., Kealy, C., & Cookston, J. T. (2024). The Role of Family Relationships on Adolescents' Development and Adjustment During the COVID-19 Pandemic: A Systematic Review. *Journal of Research on Adolescence*, 35(1). <https://doi.org/10.1111/jora.12969>
- Cañas, E., & Estévez, E. (2021). Intervention Programs for the Problematic Use of the Internet and Technological Devices: A Systematic Review. *Electronics*, 10(23), 2923. <https://doi.org/10.3390/electronics10232923>
- Conley, C. S., Hilt, L. M., & Gonzales, C. H. (2023). Internalizing in Adolescents and Young Adults. 505-523. <https://doi.org/10.1037/0000298-031>
- Doan, L. P., Le, L. K., Nguyen, T. T., Nguyễn, T. T. P., Vu, M. N. L., Vu, G. T., Latkin, C. A., Ho, C. S. H., Ho, R., & Zhang, M. (2022). Social Media Addiction Among Vietnam Youths: Patterns and Correlated Factors. *International journal of environmental research and public health*, 19(21), 14416. <https://doi.org/10.3390/ijerph192114416>
- Dražnović, M., Rukavina, T. V., & Poplašen, L. M. (2023). Impact of Social Media Use on Mental Health Within Adolescent and Student Populations During COVID-19 Pandemic: Review. *International journal of environmental research and public health*, 20(4), 3392. <https://doi.org/10.3390/ijerph20043392>
- Falcón-Linares, C., González-Yubero, S., Mauri-Medrano, M., & Moreno, M. J. C. (2023). Impact of Social Media on Adolescence: Mapping Emerging Needs to Build Resilient Skills. *Societies*, 13(11), 238. <https://doi.org/10.3390/soc13110238>
- García-Manglano, J., López-Madrigal, C., Sádaba, C., Serrano, C., & López-Fernández, O. (2021). Difficulties in Establishing "Truth" Conditions in the Assessment of Addictive Smartphone Use in Young Adults. *International journal of environmental research and public health*, 19(1), 358. <https://doi.org/10.3390/ijerph19010358>
- Haddock, A., Ward, N. L., Yu, R., & O'Dea, N. (2022). Positive Effects of Digital Technology Use by Adolescents: A Scoping Review of the Literature. *International journal of environmental research and public health*, 19(21), 14009. <https://doi.org/10.3390/ijerph192114009>
- Kaur, J., Upendra, S., & Barde, S. (2023). Effect of Digital Applications on Maternal as Well as Neonatal Outcomes in Young Pregnant Girls: A Scope Review. *Investigación Y Educación en Enfermería*, 41(3). <https://doi.org/10.17533/udea.iee.v41n3e07>
- Knowles, E. A., & Danzi, B. A. (2025). The Role of Online Social Support in Mental Health: Comparing Rural and Urban Youth. *Children*, 12(2), 113. <https://doi.org/10.3390/children12020113>
- Lin, J., & Guo, W. (2024). The Research on Risk Factors for Adolescents' Mental Health. *Behavioral Sciences*, 14(4), 263. <https://doi.org/10.3390/bs14040263>

- Liu, X., Liu, J., Flores, D. D., & McDonald, C. C. (2024). Family Factors Related to Adolescent Screen Media Use and Mental Health Outcomes: A Systematic Review and Recommendation for Practices. *Journal of adolescence*, 96(7), 1401-1427. <https://doi.org/10.1002/jad.12367>
- Manjanatha, D., Pippard, N., & Bloss, C. S. (2025). Self-Compassion as a Protective Factor Against Adverse Consequences of Social Media Use: A Scoping Review. *PLoS One*, 20(5), e0322227. <https://doi.org/10.1371/journal.pone.0322227>
- Marano, G., Lisci, F. M., Rossi, S., Marzo, E. M., Boggio, G., Brisi, C., Traversi, G., Mazza, O., Pola, R., Gaetani, E., & Mazza, M. (2025). Connected but at Risk: Social Media Exposure and Psychiatric and Psychological Outcomes in Youth. *Children*, 12(10), 1322. <https://doi.org/10.3390/children12101322>
- Marciano, L., Ostroumova, M., Schulz, P. J., & Camerini, A.-L. (2022). Digital Media Use and Adolescents' Mental Health During the Covid-19 Pandemic: A Systematic Review and Meta-Analysis. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.793868>
- Mei, F., & Wang, Z. (2024). Trends in Mental Health: A Review of the Most Influential Research on Depression in Children and Adolescents. *Annals of General Psychiatry*, 23(1). <https://doi.org/10.1186/s12991-024-00520-2>
- Prasad, S., Souabni, S. A., Anugwom, G., Aneni, K., Anand, A., Urhi, A., Obi-Azuike, C., Gibson, T., Khan, A., & Oladunjoye, A. F. (2023). Anxiety and Depression Amongst Youth as Adverse Effects of Using Social Media : A Review. *Annals of medicine and surgery*, 85(8), 3974-3981. <https://doi.org/10.1097/ms9.0000000000001066>
- Prochnow, T., Senthil, R., Poulos, A., Patterson, M. S., Blake, J. J., & Massey, P. M. (2025). Virtual Bonds; Real Emotions: Systematic Review Exploring Online Social Connections and Adolescent Mental Health. *Cyberpsychology Behavior and Social Networking*, 28(10), 658-671. <https://doi.org/10.1177/21522715251377377>
- Rutte, J. L. d., Findley, A., & Dennis-Tiwary, T. A. (2024). Living in a Digital World: Understanding the Development of Adolescent Emotional Adjustment in the Context of Digital Technologies. 159-181. <https://doi.org/10.1037/0000406-009>
- Samanta, P., Mohapatra, I., Mitra, R., Mishra, J., Mahapatra, P., Mohakud, N. K., Pattnaik, J. I., Behera, M. R., & Nanda, P. (2024). Mindfulness as a Path to Freedom From Internet Addiction in Adolescents: A Narrative Review. *Cureus*. <https://doi.org/10.7759/cureus.72544>
- Surathkumaar, H., Ramkumar, T., Aljin, V., & Joseph, J. (2025). Prevalence of Social Media Addiction and Its Determinants Among College Students in Chengalpattu District, Tamil Nadu. *Cureus*. <https://doi.org/10.7759/cureus.84625>
- Wang, M. (2023). A Review on Mobile Phone Addiction Among Teenagers. *Lecture Notes in Education Psychology and Public Media*, 24(1), 283-288. <https://doi.org/10.54254/2753-7048/24/20230758>
- Yu, L., & Du, M. (2022). Social Networking Use, Mental Health, and Quality of Life of Hong Kong Adolescents During the COVID-19 Pandemic. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.1040169>