

## Prevalence of Internet Addiction and its Association with Loneliness and Social Phobia among High School Students in Rural Southern Italy

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### Abstract

With the rapid advancement of digital technology, internet addiction has become a pressing issue, especially among adolescents. This study examines the prevalence of internet addiction among high school students in rural Southern Italy and explores its association with loneliness and social phobia. A cross-sectional study was conducted involving 500 high school students from various rural areas in Southern Italy. Standardized questionnaires, including the Internet Addiction Test (IAT), UCLA Loneliness Scale, and the Social Phobia Inventory (SPIN), were used to collect data. Results reveal that 30% of students exhibit signs of internet addiction, with a significant correlation between high IAT scores and increased levels of loneliness and social phobia. The findings underscore the importance of early intervention and the need for tailored programs to address mental health concerns among adolescents in rural areas.

**Keywords:** Internet Addiction, Loneliness, Social Phobia, Adolescents, Rural Southern Italy, Mental Health, Digital Literacy, Social Anxiety

### Introduction

The internet has revolutionized the way individuals communicate, gather information, and interact. While it has undoubtedly brought many benefits, excessive internet use has been linked to various adverse outcomes, particularly among adolescents. Internet addiction is characterized by an excessive and compulsive need to use the internet, leading to neglect of real-life relationships, academic responsibilities, and personal well-being. Studies have shown that adolescents are especially vulnerable due to their developing social and emotional skills.

In Italy, as in many other countries, internet addiction among adolescents has become a growing concern. While research in urban areas has highlighted a clear connection between internet use and mental health issues, less is known about its impact on adolescents in rural regions. This study focuses on high school students in rural Southern Italy, where access to mental health resources is often limited, and examines the prevalence of internet addiction and its relationship with loneliness and social phobia. Internet addiction is a behavioral disorder characterized by an inability to control internet use, leading to interference with daily activities and responsibilities. The phenomenon is particularly concerning among adolescents, who are in a critical developmental stage where social skills and self-identity are still forming. Studies suggest that excessive internet use may exacerbate issues like poor academic performance, sleep disturbances, and mental health conditions, such as depression and anxiety. Loneliness and social phobia are mental health conditions that frequently co-occur with internet addiction. Loneliness, a subjective feeling of social isolation, has been found to both contribute to and result from excessive internet use, as individuals seek online interactions to replace face-to-face relationships. Social phobia, or social anxiety disorder, is characterized by an intense fear of being judged in social situations. Adolescents with social phobia may turn to the internet as a safe space to interact without the risk of face-to-face confrontation. Research in various cultural contexts indicates a correlation between internet addiction, loneliness, and social phobia. Adolescents with high levels of loneliness or social phobia are more likely to develop internet addiction as a coping mechanism. Conversely, prolonged internet addiction

may increase feelings of isolation and social withdrawal, further exacerbating loneliness and social anxiety. However, few studies have examined this phenomenon in the rural Italian context, where cultural and geographical factors may influence these relationships [1-5].

### Methodology

#### Study design and population

A cross-sectional survey was conducted among high school students aged 15-18 in rural Southern Italy. The study aimed to assess the prevalence of internet addiction and its association with loneliness and social phobia.

#### Sampling

Five high schools from various rural towns in Southern Italy were selected using random sampling. In total, 500 students were invited to participate, and written consent was obtained from their parents or guardians.

#### Data collection tools

- **Internet addiction test (IAT):** The IAT, developed by Kimberly Young, is a 20-item questionnaire used to assess the presence and severity of internet addiction. Scores range from 0 to 100, with higher scores indicating greater levels of addiction.
- **UCLA loneliness scale:** This scale is widely used to assess subjective feelings of loneliness. It includes 20 items that ask respondents to rate how often they feel isolated or left out.

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- **Social phobia inventory (SPIN):** The SPIN is a 17-item measure designed to assess the severity of social phobia. Higher scores indicate a greater level of social anxiety.

### Data analysis

Data were analyzed using SPSS software. Descriptive statistics were used to determine the prevalence of internet addiction, while Pearson's correlation analysis was conducted to examine the relationship between internet addiction, loneliness, and social phobia [6].

## Results

### Prevalence of internet addiction

Of the 500 students surveyed, approximately 30% (150 students) met the criteria for internet addiction based on IAT scores. The majority of addicted students were male, accounting for 60% of the cases, and most of these students reported spending more than four hours online each day outside of schoolwork [6].

### Association between internet addiction and loneliness

Students with higher IAT scores tended to report higher levels of loneliness. Correlation analysis indicated a significant positive relationship ( $r = 0.45$ ,  $p < 0.01$ ) between internet addiction and loneliness. Students with moderate to severe internet addiction were more likely to experience loneliness, often due to neglect of offline relationships and social activities.

### Association between internet addiction and social phobia

The data also revealed a positive correlation between internet addiction and social phobia ( $r = 0.52$ ,  $p < 0.01$ ). Students with high levels of social anxiety were more likely to be classified as internet-addicted, as they turned to online platforms as a safe space to interact without facing social scrutiny.

### Combined effects of loneliness and social phobia on internet addiction

Regression analysis showed that loneliness and social phobia together accounted for 35% of the variance in IAT scores ( $R^2 = 0.35$ ,  $p < 0.01$ ). This suggests that students who experience both loneliness and social phobia are at a higher risk of developing internet addiction compared to those with either condition alone [7].

## Discussion

This study highlights a concerning prevalence of internet addiction among high school students in rural Southern Italy. The findings align with previous research indicating that internet addiction is closely associated with loneliness and social phobia. Adolescents facing these mental health challenges may turn to the internet as a coping mechanism, where they find temporary relief from isolation or fear of social judgment. However, excessive internet use can worsen these issues over time, creating a cycle of addiction, isolation, and anxiety. The high prevalence of internet addiction in rural areas underscores the need for targeted interventions. Adolescents in these regions may lack access to mental health resources, making it difficult to address issues like loneliness and social phobia before they escalate. Schools and local communities can play a critical role by implementing programs to educate students about healthy internet use and by providing resources to manage loneliness and social anxiety. Loneliness, as this study reveals, is a significant predictor of internet addiction among adolescents. Students experiencing higher levels of loneliness were

more likely to exhibit addictive internet behaviors. Loneliness among adolescents may stem from various factors, including lack of close relationships, low self-esteem, or insufficient family support. In rural areas, adolescents might also experience isolation due to physical distance from peers, limited public transport options, or smaller social circles, making it harder to find in-person companionship. The internet, in this context, offers a convenient yet ultimately inadequate substitute for genuine social connection. Social media platforms, online gaming, and other digital interactions provide a sense of belonging and interaction but often lack the depth and authenticity of face-to-face relationships. Adolescents may become increasingly reliant on these platforms to counter feelings of loneliness, inadvertently reinforcing their addiction. Over time, excessive online interaction may lead to neglect of real-world relationships, exacerbating loneliness further and deepening the cycle of addiction. Social phobia, or social anxiety, also emerged as a key factor associated with internet addiction. Adolescents with social anxiety may find it challenging to engage in face-to-face interactions, fearing judgment or rejection. For these students, the internet becomes a safe haven where they can communicate without the pressure of in-person social norms. Social media, forums, and online gaming environments allow them to control their interactions and even adopt anonymous identities, reducing the perceived risk of embarrassment or criticism [8-11].

While the internet may provide temporary relief from social anxiety, excessive reliance on it can lead to avoidance of real-life social situations, worsening social phobia over time. Adolescents might become less equipped to handle in-person interactions as they continue to rely on online spaces for socializing. This reliance can create a feedback loop: the more time they spend online, the more they avoid real-life social interactions, ultimately reinforcing their social anxiety and internet addiction. Given the associations found in this study, there is a pressing need for targeted interventions to address internet addiction among adolescents in rural Southern Italy. Schools and local communities should consider implementing programs that promote digital literacy, teaching students about responsible internet use, the risks of excessive online activity, and the importance of balancing digital interactions with real-life social connections. Introducing workshops that focus on building social skills and self-esteem could be beneficial for students struggling with loneliness and social anxiety, equipping them with the tools they need to engage in face-to-face interactions confidently. Furthermore, mental health screenings in schools could help identify students at risk of loneliness, social phobia, and internet addiction. By recognizing these signs early, educators and counselors can intervene before these behaviors escalate. For instance, counseling services in schools could offer support groups or individual therapy sessions to help students manage social anxiety and develop healthier coping mechanisms [12-15].

### Implications for Policy and Practice

Given the association between internet addiction, loneliness, and social phobia, schools in rural Southern Italy should consider integrating digital literacy and mental health education into their curricula. Encouraging offline social interactions and group activities could help reduce feelings of loneliness and dependence on the internet for social fulfillment. Additionally, policymakers should work to increase access to mental health services in rural areas, where adolescents may not have the resources to seek help independently [16].

## Conclusion

Internet addiction is a significant issue among high school students

in rural Southern Italy, with notable correlations to loneliness and social phobia. This study underscores the need for proactive measures to prevent and address internet addiction in adolescents, particularly those in underserved rural areas. By providing mental health resources, promoting responsible internet use, and fostering real-life social interactions, schools and communities can help mitigate the risks associated with internet addiction and support the mental well-being of young people.

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### Conflict of Interest

None

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