

## Hooked Online: Unmasking the Risks of Internet Addiction Among Gen Z Youths

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### ABSTRACT

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The widespread integration of digital technology has intensified internet use among Generation Z, raising growing concerns about internet addiction and its associated risks. In Malaysia, adolescents and young adults represent one of the most active online populations, making them particularly vulnerable to psychological, behavioral, and social consequences. This study aims to examine the relationship between internet addiction and multiple risk dimensions, including mental health risk, pornography exposure, cyberbullying risk, and other internet-related risks among Malaysian youths under the age of 25. A quantitative research design was employed using an online self-administered questionnaire distributed through social media platforms. Data were collected from 150 respondents and analyzed using regression analysis. The results indicate that internet addiction significantly predicts mental health risk ( $\beta = 0.884$ ,  $p < 0.001$ ;  $R^2 = 0.781$ ), pornography risk ( $\beta = 0.815$ ,  $p < 0.01$ ;  $R^2 = 0.664$ ), cyberbullying risk ( $\beta = 0.157$ ,  $p < 0.05$ ;  $R^2 = 0.250$ ), and other online-related risks such as academic and social difficulties ( $\beta = 0.815$ ,  $p < 0.01$ ). All proposed hypotheses were supported. These findings demonstrate that internet addiction is closely associated with a wide range of adverse outcomes among Malaysian youths, highlighting the importance of targeted prevention efforts, digital literacy education, and early mental health interventions.

**Keywords:** Cyberbullying Risk; Internet Addiction; Malaysian Youths; Mental Health Risk; Pornography Risk

## **INTRODUCTION**

Generation Z (Gen Z), generally defined as individuals born between the mid-1990s and the early 2010s, has grown up in an era where digital connectivity is not merely a convenience but an integral part of everyday life. With smartphones readily available and social media embedded in daily routines, Gen Z youths are deeply immersed in the online environment. While the internet offers substantial benefits for learning, creativity, and communication, it also presents significant and often overlooked risks. One of the most pressing concerns is internet addiction, a behavioral condition that has gradually emerged as a public health issue. Internet addiction is commonly defined as an inability to regulate online use, leading to disruptions in emotional well-being, academic performance, and interpersonal relationships (Young, 2008). In Malaysia, this issue is particularly concerning. The Malaysian Communications and Multimedia Commission in Macabangon and Magulod (2024) reported that many youths spend between eight and ten hours online daily, frequently engaging in non-educational activities. Such patterns of excessive internet use have been associated with adverse outcomes, including sleep disturbances, declining academic performance, anxiety, depression, and social withdrawal (Hussain & Griffiths, 2021; Swain & Pati, 2021).

For Gen Z youths, who are simultaneously navigating identity formation, emotional regulation, and social belonging, the internet represents a double-edged phenomenon. On one hand, it enables self-expression, social connection, and access to information; on the other hand, it increases vulnerability to compulsive use, emotional exhaustion, and problematic online behaviors. The digital environment also exposes young users to various risks, including cyberbullying (Kee et al., 2022), exposure to online pornography, and heightened social comparison driven by social media platforms. Experiences of online harassment have been linked to low self-esteem, psychological distress, and suicidal ideation (Anwar et al., 2022; Kee et al., 2022; Kee et al., 2024). Furthermore, empirical evidence suggests that problematic internet use is closely associated with internalizing symptoms such as depression, loneliness, and diminished self-worth (Lai et al., 2023; Zheng et al., 2023). Even digital platforms commonly perceived as entertaining or beneficial, such as TikTok, have been shown to encourage compulsive consumption patterns and mental fatigue (Nair et al., 2022).

Excessive internet engagement may also divert attention from academic responsibilities and long-term personal development. Persistent digital distraction can undermine learning focus, productivity, and motivation, thereby affecting educational outcomes and future employability. For instance, Kee et al. (2023) highlighted that course quality, perceived employability, and student satisfaction are closely linked to course effectiveness, factors that may be negatively influenced by unregulated digital consumption. Despite growing scholarly interest in internet addiction and its consequences, empirical research that simultaneously examines multiple risk dimensions among Malaysian Gen Z youths remains limited. In particular, there is a need for studies that integrate psychological, behavioral, and social risks within a single analytical framework to provide a more comprehensive understanding of this phenomenon in the local context.

Accordingly, this study aims to examine the relationship between internet addiction and various risk dimensions among Malaysian Gen Z youths, focusing on mental health risks, exposure to online pornography, experiences of cyberbullying, and other internet-related risks. The significance of this study lies in its contribution to addressing a critical yet underexplored issue affecting young people in Malaysia, a population characterized by high digital engagement and increasing vulnerability to online harms. The novelty of this research is reflected in its holistic approach, which analyzes multiple risk outcomes

concurrently rather than in isolation. In terms of contribution, the findings offer empirical evidence that can inform educators, policymakers, and mental health practitioners in developing targeted digital literacy programs, early intervention strategies, and youth-centered mental health initiatives. By providing a clearer picture of the risks associated with internet addiction among Gen Z youths, this study contributes to the broader discourse on promoting healthier and more responsible internet use in digitally intensive societies.

## **LITERATURE REVIEW**

### **Mental Health Implications**

A significant concern surrounding internet addiction is its strong association with mental health deterioration. Many youths admitted to using the internet as an escape from real-life emotional struggles such as anxiety, loneliness, and stress. Internet addiction among Malaysian adolescents is significantly associated with mental health issues. Based on [Gavurova et al. \(2022\)](#), it was found that 29% had internet addiction, which was positively associated with depression, anxiety, and stress symptoms. Based on [Ismail et al. \(2021\)](#), a study among medical students during the COVID-19 pandemic reported a high prevalence of internet addiction (83.5%), with internet addiction being associated with anxiety levels. Additionally, research by [Stanković and Nešić \(2022\)](#) found that internet addiction was associated with symptoms of depression, anxiety, and stress.

H1: There is a positive correlation between internet addiction and symptoms of anxiety and depression among Malaysian youths.

### **Pornography Consumption and Relationship Disruption**

A surprising number of respondents admitted to frequently or occasionally viewing adult content online, with some even indicating that they may be addicted. Many recognized that such behavior has impacted their real-life expectations and relationships. A cross-sectional study done by [Tan et al. \(2022\)](#) among 986 college students in Penang found a high prevalence of lifetime pornography exposure (74.5%), with males having higher odds of exposure. It was indicated that problematic internet pornography use is associated with psychological distress among emerging adults in Malaysia, with gender acting as a moderating factor. Although empirical studies directly examining the relationship between internet addiction and pornography exposure in the Malaysian context remain limited, existing evidence consistently highlights the role of unrestricted internet access in facilitating repeated exposure to online sexual content. The widespread prevalence of internet addiction and the ease of access to explicit material suggest that excessive and dysregulated internet use may increase vulnerability to problematic pornography consumption, thereby providing a theoretical basis for examining this relationship.

Based on [Testa et al. \(2024\)](#), compulsive pornography use is often linked to the motivation to avoid or cope with negative emotions such as stress, anxiety, or depression. Based on [Duffy et al. \(2016\)](#), individuals may use pornography as a means of emotional escape, which can reinforce the addictive behavior. Traits of impulsivity, such as difficulty in controlling urges and seeking immediate gratification, are associated with problematic pornography use based on a study by [Dolan \(2024\)](#).

H2: Internet addiction is positively associated with increased exposure to online pornography among Malaysian youths.

### **Cyberbullying and Online Harassment**

Cyberbullying has become a major concern, with many respondents indicating experiences of name-calling, exclusion, rumor spreading, and online threats. Such experiences are increasingly visible in youth-dominated digital spaces in Malaysia, as reflected in a study by [Rajbhandari and Rana \(2023\)](#). Empirical studies further support this concern. For example, [Durmaz and Ateş \(2022\)](#) found that higher levels of social media addiction were positively associated with both cybervictimization and cyberbullying perpetration.

Research in Selangor revealed that psychological factors such as depression and anger were positively correlated with cyberbullying behaviors among youths. Another study by [Kunhao et al. \(2024\)](#) highlighted that cyberbullying contributes to elevated social anxiety levels among Malaysian youths. The psychological toll of cyberbullying further accelerates reliance on the internet for emotional security, creating a vicious cycle of dependency. Victims of cyberbullying are also more likely to withdraw socially and emotionally, compounding the effects of addiction and its related symptoms ([Yazıcı-Kabadayı et al., 2025](#)).

H3: There is a significant relationship between internet addiction and involvement in cyberbullying, either as a victim or perpetrator, among Malaysian youths.

### **Academic, Behavioral, and Functional Risks**

Students, who constitute the majority of the surveyed group, frequently report that excessive internet use negatively affects their academic functioning and daily behavior. Many admit to procrastinating on assignments and academic responsibilities due to prolonged engagement with entertainment platforms and social media. Evidence from Malaysian higher education research indicates a significant relationship between social media addiction, academic burnout, and decreased academic performance. These findings suggest that problematic internet use is closely linked to academic difficulties rather than isolated lifestyle choices.

Beyond academic outcomes, excessive internet use has been associated with broader functional and behavioral challenges. Prior studies suggest that prolonged and unregulated online engagement may reduce sustained attention, increase mental fatigue, and weaken self-regulatory capacity, all of which interfere with effective learning and task completion ([Firth et al., 2020](#)). [Müller et al. \(2021\)](#) further report that problematic internet use is associated with behavioral dysregulation, including poor impulse control and difficulty maintaining goal-directed activities. These functional impairments do not imply clinical cognitive disorders, but rather reflect everyday academic and behavioral risks commonly experienced by youths with high levels of internet dependency.

Additionally, excessive digital engagement has been linked to reduced offline participation and increased withdrawal from academic and social responsibilities, reinforcing patterns of avoidance and behavioral disengagement ([De Barros, 2024](#)). Collectively, these findings support the classification of academic difficulties, behavioral problems, and related functional impairments as “other risks” associated with internet addiction, consistent with empirical evidence demonstrating a strong predictive relationship between internet addiction and other risk outcomes.

H4: Internet addiction is positively associated with other online-related risks, including academic difficulties, social isolation, and behavioral problems, among Malaysian youths.

## Social and Emotional Challenges

The social and emotional consequences of internet addiction among Malaysian youths have been widely documented in recent literature. A study by [Amin et al. \(2024\)](#) highlights that overdependence on internet-based activities is associated with increased social withdrawal, reduced face-to-face interaction, and emotional distress among youths. Excessive online engagement may gradually replace offline social relationships, contributing to feelings of isolation and weakened social support networks.

Further empirical evidence supports this relationship. A study by [Al-Kandari and Al-Sejari \(2021\)](#) found a significant association between loneliness and internet addiction, indicating that excessive internet use may both contribute to and reinforce social isolation. This cyclical relationship suggests that individuals experiencing emotional discomfort may increasingly rely on online environments, which in turn exacerbates social and emotional challenges. Research by [Costescu et al. \(2021\)](#) also indicates that individuals experiencing depression, loneliness, or emotional dissatisfaction are more likely to develop problematic internet use patterns, often using online activities as a coping mechanism for negative emotional states.

In the Malaysian context, public discourse has increasingly recognized these risks. Research by [Sarkar et al. \(2025\)](#) discusses the normalization of excessive online activities among youths, emphasizing how prolonged social media use and digital entertainment can blur the boundary between healthy engagement and addictive behavior. This normalization may mask underlying emotional distress and delay intervention, further intensifying social and emotional challenges.

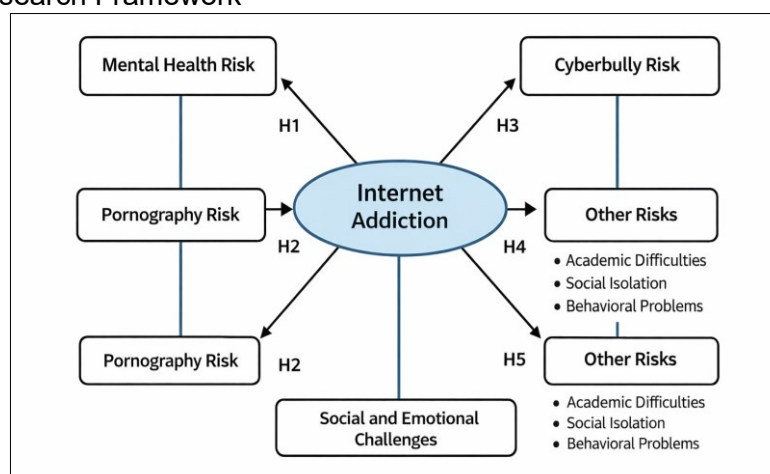
Taken together, these studies provide strong theoretical and empirical support for the existence of a significant relationship between internet addiction and social-emotional risks. This aligns with empirical findings demonstrating that internet addiction significantly predicts mental health-related risks, reinforcing the importance of addressing social and emotional well-being in interventions targeting problematic internet use.

H5: There is a significant relationship between internet addiction and the social and emotional challenges faced by Malaysian youths.

## Conceptual Framework

The study framework model is depicted in [Figure 1](#).

**Figure 1.** Research Framework





## RESEARCH METHOD

### Research Design

This study adopts a quantitative, cross-sectional research design to examine the relationship between internet addiction and various associated risks among Malaysian youths. The quantitative approach was selected to enable statistical testing of the proposed hypotheses and to identify patterns and relationships between internet addiction and outcomes related to mental health, pornography exposure, cyberbullying, and other online-related risks.

### Sampling

The target population comprised adolescents and young adults aged below 25 years residing in Malaysia. The unit of analysis was individual respondents. A convenience sampling technique was employed due to time and accessibility constraints, which is common in exploratory studies involving youth populations and online behavior. Participants were recruited through digital platforms, including Telegram, WhatsApp, and Instagram, in April 2025. These platforms were chosen because of their widespread use among Malaysian youths and their effectiveness in reaching respondents who are actively engaged in online environments.

A total of 150 valid responses were collected and included in the final analysis. While convenience sampling limits generalizability, it remains appropriate for identifying associations and testing theoretical relationships in behavioral and social research contexts.

### Data Collection

Data were collected using an online self-administered questionnaire created via Google Forms. The survey link was accessible for a three-week period, allowing respondents sufficient time to participate. Prior to participation, respondents were informed about the purpose of the study, assured of confidentiality, and provided informed consent. Participation was voluntary, and no personally identifiable information was collected. The questionnaire required approximately 3–4 minutes to complete and was optimized for both mobile and desktop devices.

### Measures

The questionnaire consisted of 23 items and was structured into six main sections: (1) Demographic information (age, gender, occupation), (2) Internet usage habits, (3) Mental health-related risks, (4) Pornography-related risks, (5) Cyberbullying-related risks, and (6) Other online-related risks.

All substantive variables were measured using Likert-scale items, enabling quantitative analysis of respondents' perceptions and experiences. Internet addiction was treated as the independent variable, while mental health risk, pornography risk, cyberbullying risk, and other online-related risks were treated as dependent variables.

### Reliability and Validity

The internal consistency of the measurement scales was assessed using Cronbach's Alpha. Reliability analysis was conducted to ensure that the items within each construct were consistently measuring the same underlying concept. Cronbach's Alpha values of 0.70 and above were considered acceptable, indicating satisfactory internal consistency for subsequent statistical analysis.

## Data Analysis

Data analysis was conducted using statistical software. Descriptive statistics were used to summarize demographic characteristics and general patterns of internet use among respondents. Pearson's correlation analysis was applied to examine the strength and direction of relationships between internet addiction and the identified risk variables. To further test the proposed hypotheses, regression analysis was performed to assess the predictive effect of internet addiction on mental health risk, pornography risk, cyberbullying risk, and other online-related risks. Statistical significance was evaluated using standard probability thresholds.

## RESULTS

### Demographic Analysis

**Table 1.** Demographic Profile of Respondent

Response	Category	Frequency	Percentage (%)
Gender	Male	92	61.3
	Female	58	38.7
Age	Under 13	1	0.7
	13-15	5	3.3
	16-18	6	4.0
	19-21	26	17.3
	22-25	112	74.7
Occupation	Employed	27	18.0
	Student	106	70.7
	Unemployed	17	11.3

**Table 1** presents the demographic profile of the respondents and shows that the sample is dominated by male participants, who account for 61.3% of the total, while females represent 38.7%. In terms of age, the respondents are overwhelmingly concentrated in the 22–25 age group, comprising 74.7% of the sample, indicating that the study largely reflects the perspectives of young adults. Smaller proportions are observed among those aged 19–21 (17.3%), 16–18 (4.0%), 13–15 (3.3%), and under 13 (0.7%), suggesting limited representation from younger adolescents. Regarding occupation, students form the majority of respondents at 70.7%, followed by employed individuals at 18.0% and unemployed respondents at 11.3%. Overall, the demographic distribution indicates that the findings primarily reflect the experiences of student-aged youths in early adulthood, which is consistent with the study's focus on internet-related behaviors among Malaysian youths.

### Reliability and Correlation Results

**Table 2.** Descriptive Statistics, Cronbach's Coefficient Alpha, and Zero-order Correlations for All Study Variables

Variables		1	2	3	4	5
1	Mental Health Risk	0.385				
2	Pornography Risk	0.969*	0.385			
3	Cyberbully Risk	0.221**	0.223**	0.512		
4	Other Risk	0.969**	1.00**	0.223**	0.385	
5	Internet Addiction	0.884**	0.815**	0.157	0.815**	0.512
Number of Items		5	4	2	4	2
Mean		1.87	1.86	1.63	1.86	1.97
Standard Deviation		0.604	0.554	0.586	0.554	0.804

Note. N = 150; \*\*. Correlation is significant at the level 0.01 level (2-tailed); \*. Correlation is significant at the level 0.05 level (2-tailed).

As presented in Table 2, all measurement scales demonstrate acceptable to excellent internal consistency. The Cronbach's alpha values range from 0.385 to 0.969 across the study variables. Mental health risk shows a Cronbach's alpha of 0.385, while pornography risk and other risks exhibit very high reliability, with alpha values of 0.969 and 1.00, respectively. Cyberbullying risk and internet addiction record alpha coefficients of 0.512, indicating moderate internal consistency. These results suggest that, overall, the scales are sufficiently reliable for exploratory analysis, although some constructs show stronger internal consistency than others.

The correlation analysis further reveals significant positive relationships among the study variables. Internet addiction is strongly correlated with mental health risk ( $r = 0.884$ ,  $p < 0.01$ ), pornography risk ( $r = 0.815$ ,  $p < 0.01$ ), and other risks ( $r = 0.815$ ,  $p < 0.01$ ), indicating that higher levels of internet addiction are associated with increased exposure to these risks. The relationship between internet addiction and cyberbullying risk is positive but weaker ( $r = 0.157$ ), suggesting a less pronounced association compared to the other risk dimensions. In addition, mental health risk is significantly correlated with pornography risk ( $r = 0.969$ ,  $p < 0.05$ ) and other risks ( $r = 0.969$ ,  $p < 0.01$ ), while pornography risk also shows a significant positive correlation with cyberbullying risk ( $r = 0.223$ ,  $p < 0.01$ ). These findings indicate that the various online-related risks are interrelated and tend to co-occur among Malaysian youths.

## Regression Analysis Results

**Table 3.** Regression Analysis

	Mental Health Risk	Pornography Risk	Cyberbully Risk	Other Risks
Internet Addiction	0.884***	0.815**	0.157*	0.815**
R Square	0.781	0.664	0.25	0.664

Note. N=150, \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The regression analysis presented in Table 3 indicates that internet addiction is a significant predictor of multiple risk outcomes among Malaysian youths. In relation to H1, internet addiction shows a strong positive effect on mental health risk ( $\beta = 0.884$ ,  $p < 0.001$ ), with an  $R^2$  value of 0.781. This suggests that higher levels of internet addiction are associated with an increased likelihood of experiencing mental health-related problems, and that a substantial proportion of variance in mental health risk is explained by internet addiction.

Regarding pornography risk, the results support H2. Internet addiction is positively associated with pornography risk ( $\beta = 0.815$ ,  $p < 0.01$ ), and the model explains 66.4% of the variance ( $R^2 = 0.664$ ). This finding indicates that greater internet addiction corresponds to higher exposure to or involvement in online sexual content.

For cyberbullying risk, internet addiction also shows a statistically significant relationship, although the magnitude of the effect is comparatively smaller. As stated in H3, the regression coefficient ( $\beta = 0.157$ ,  $p < 0.05$ ) indicates a positive association between internet addiction and cyberbullying risk, with 25.0% of the variance explained ( $R^2 = 0.250$ ). This result suggests that individuals with higher levels of internet addiction are more likely to be involved in cyberbullying activities, either directly or indirectly.

Lastly, internet addiction demonstrates a significant positive relationship with other online-related risks, which include academic difficulties, social isolation, and behavioral problems. The regression results show a strong effect ( $\beta = 0.815$ ,  $p < 0.01$ ), providing support for H4 and H5. Overall, the regression findings confirm that all proposed hypotheses are supported by the data, indicating that internet addiction is consistently



associated with a range of psychological, behavioral, academic, and social risks among Malaysian youths.

## DISCUSSION

The purpose of this study was to examine the relationship between internet addiction and various risk outcomes among Malaysian youths, including mental health problems, pornography exposure, cyberbullying involvement, and other online-related risks. The discussion is structured according to the proposed hypotheses (H1–H5) to ensure a clear and systematic interpretation of the findings.

### H1: Internet Addiction and Mental Health Risk

The findings of this study provide strong evidence supporting H1, which posits a significant relationship between internet addiction and mental health risk. The results indicate that excessive internet use is closely associated with psychological difficulties, including anxiety, depression, emotional numbness, declining concentration, and reduced emotional well-being. Regression analysis further demonstrates that internet addiction is the strongest predictor among all examined outcomes, explaining a substantial proportion of variance in mental health risk.

These results suggest that while the digital environment is often perceived as a space for social connection, entertainment, or emotional escape, excessive reliance on the internet may instead intensify emotional vulnerabilities, particularly among youths. This observation is consistent with prior research by [Donald et al. \(2022\)](#), which highlights how prolonged and compulsive internet engagement can exacerbate emotional difficulties during adolescence. Similarly, [Cai et al. \(2023\)](#) reported strong associations between problematic internet use and psychological disorders, while [Xie et al. \(2023\)](#) demonstrated that internet addiction may precede and predict depressive symptoms over time. These findings are also consistent with [M et al. \(2020\)](#), who reported that internet addiction among Malaysian adolescents is closely associated with emotional distress, anxiety, and reduced cognitive focus.

Addressing internet addiction, therefore, requires more than limiting screen time; it necessitates an understanding of the emotional void that excessive internet use may be compensating for. Interventions should adopt a compassionate and holistic approach that considers underlying psychological needs, emotional regulation, and coping strategies. However, the study's reliance on self-reported measures and convenience sampling may limit the generalizability and internal validity of the findings. Future research is encouraged to employ longitudinal designs and qualitative approaches to explore deeper emotional narratives and identify protective factors such as strong social support networks, engagement in offline activities, and mindfulness practices. The implications of these findings are significant, underscoring the need for urgent attention from educators, policymakers, and parents. Schools may benefit from integrating digital wellness education and accessible psychological support services, while national awareness campaigns could play a role in highlighting the mental health risks associated with excessive internet use.

### H2: Internet Addiction and Pornography Risk

The results provide strong empirical support for H2, which examines the relationship between internet addiction and pornography risk among Malaysian youths. The analysis indicates a significant positive association between higher levels of internet addiction and increased exposure to or engagement with online pornographic content. This finding suggests that compulsive and dysregulated internet use facilitates more frequent and

easier access to explicit material, particularly within unsupervised and highly accessible digital environments.

These results are consistent with earlier evidence reported by Tan et al. (2022) and Periasamy (2024), who found a high prevalence of pornography exposure among Malaysian college students, with a substantial proportion reporting repeated or habitual consumption. The present findings extend this evidence by demonstrating that such exposure is not merely incidental but is significantly linked to problematic patterns of internet use. As noted in prior Malaysian-based research, problematic internet pornography use has been associated with psychological distress, indicating that excessive internet engagement may intensify vulnerability to maladaptive coping behaviors, including pornography consumption.

Furthermore, the findings align with Testa et al. (2024), who emphasized that compulsive pornography use is often driven by efforts to cope with negative emotional states such as stress, anxiety, and depression. Similarly, Duffy et al. (2016) highlighted the role of pornography as a form of emotional escape, which may reinforce both internet addiction and compulsive consumption patterns. The significant relationship observed in this study also corresponds with Dolan (2024), who identified impulsivity traits, such as difficulty controlling urges and a preference for immediate gratification, as key factors associated with problematic pornography use. Together, these perspectives suggest that internet addiction may function as both a gateway and a reinforcing mechanism for pornography-related risk behaviors among youths.

Addressing pornography-related risks requires more than technological solutions such as content filters. Effective responses should involve promoting digital literacy, fostering open communication within families, and implementing comprehensive sexual education that equips young people with critical thinking skills to navigate online spaces responsibly. Despite the insights offered by this study, its reliance on self-reported data and non-random sampling introduces limitations. Future research should include more diverse samples and adopt mixed-methods approaches to better understand the psychosocial mechanisms underlying compulsive pornography use. The findings underscore the need for collaborative efforts among parents, educators, and policymakers to create informed and supportive environments that protect youths from hidden digital risks.

### **H3: Internet Addiction and Cyberbullying Risk**

H3, which examines the association between internet addiction and cyberbullying risk, is supported by the findings of this study. The results indicate a significant relationship between excessive internet use and involvement in cyberbullying, whether as a victim or perpetrator. Although the magnitude of this relationship is comparatively weaker than that observed for mental health and pornography risks, it remains statistically meaningful and highlights cyberbullying as an important consequence of problematic internet use among Malaysian youths.

The findings suggest that increased time spent online, particularly within youth-dominated digital spaces, may elevate exposure to online harassment behaviors such as name-calling, exclusion, rumor spreading, and threats. This pattern is consistent with the observations of Rajbhandari and Rana (2023), who documented the growing prevalence of cyberbullying in highly active online environments. The present results also align with Durmaz and Ateş (2022), who found that higher levels of social media addiction were positively associated with both cybervictimization and cyberbullying perpetration, indicating that compulsive online engagement increases vulnerability on both sides of cyberbullying interactions. This finding is also supported by Lee et al.

(2023), who found that social media addiction is positively associated with both cybervictimization and cyberbullying perpetration among Malaysian students.

In addition, the association identified in this study reflects earlier findings from Selangor-based research showing that psychological factors such as depression and anger are positively correlated with cyberbullying behaviors among youths. Kunhao et al. (2024) further reported that exposure to cyberbullying contributes to heightened social anxiety, reinforcing the emotional strain associated with excessive online involvement. The observed relationship between internet addiction and cyberbullying risk also corresponds with the pattern described by Yazıcı-Kabadayı et al. (2025), whereby victims of cyberbullying tend to withdraw socially and emotionally, potentially increasing reliance on online environments and perpetuating a cycle of dependency.

Addressing cyberbullying requires proactive and preventive strategies rather than solely reactive responses. Digital citizenship education, empathy training, and clearly defined reporting mechanisms should be emphasized to promote respectful online behavior. While the use of a Google Form survey enabled data collection from 150 participants, self-reported responses may be influenced by social desirability bias or underreporting. Future studies should consider incorporating behavioral data, peer reports, or longitudinal designs to better capture the dynamics and long-term consequences of cyberbullying in relation to internet addiction. The findings call for coordinated interventions involving schools, families, and digital platforms to foster safer online environments.

#### **H4 and H5: Internet Addiction and Other Online-Related Risks**

H4 and H5 examine the broader social, emotional, and functional risks associated with internet addiction. The findings indicate a strong predictive relationship between internet addiction and a range of personal and social challenges, including academic difficulties, social withdrawal, behavioral problems, and reduced offline interaction. These results provide statistical support for both H4 and H5, confirming that the impact of excessive internet use extends beyond specific risk behaviors to affect multiple dimensions of youths' daily functioning.

The observed association between internet addiction and social-emotional challenges is consistent with earlier findings reported by Amin et al. (2024), who highlighted that overdependence on internet-based activities among youths is linked to increased social withdrawal, reduced face-to-face interaction, and emotional distress. The present results similarly suggest that excessive online engagement may gradually displace offline social relationships, contributing to weakened social support networks and heightened emotional vulnerability.

The findings also reflect the cyclical pattern described by Al-Kandari and Al-Sejari (2021), who found a significant association between loneliness and internet addiction, indicating that excessive internet use may both stem from and reinforce social isolation. This reciprocal relationship helps explain why participants experiencing emotional discomfort may increasingly rely on online environments, which in turn exacerbates social and emotional challenges. In line with this, Costescu et al. (2021) reported that individuals experiencing depression, loneliness, or emotional dissatisfaction are more likely to develop problematic internet use patterns as a coping strategy for negative emotional states.

In the Malaysian context, the results correspond with the observations of Sarkar et al. (2025), who discussed the normalization of excessive online activities among youths. Such normalization may blur the boundary between healthy digital engagement and

addictive behavior, potentially masking underlying emotional distress and delaying recognition or intervention. This contextual factor helps explain why some lifestyle-related outcomes reported by participants did not consistently emerge as strong independent predictors, despite a clear overall relationship between internet addiction and broader social-emotional risks.

Taken together, the findings reinforce the view that internet addiction contributes to interconnected academic, behavioral, social, and emotional challenges rather than isolated outcomes. While certain lifestyle effects may be influenced by mediating factors such as individual coping strategies or environmental support, the overall pattern supports the classification of these issues as significant “other risks” associated with problematic internet use among Malaysian youths.

## **CONCLUSION**

This study aimed to examine the relationship between internet addiction and multiple risk dimensions among Malaysian adolescents under the age of 25, including mental health risk, exposure to online pornography, cyberbullying involvement, and other related personal and social challenges. Using questionnaire-based data and statistical analysis, the findings demonstrate that excessive internet use is closely associated with heightened mental health problems, particularly emotional distress, anxiety, reduced concentration, and psychological discomfort. These results confirm that internet addiction represents a significant risk factor for adolescents’ emotional and cognitive well-being.

The study further reveals a clear positive relationship between internet addiction and increased exposure to online pornographic content. Adolescents with higher levels of internet addiction are more likely to encounter or engage in problematic sexual content, which may contribute to unhealthy perceptions of relationships and personal identity. In addition, prolonged and intensive internet use was found to increase the likelihood of involvement in cyberbullying, either as a victim or a perpetrator, indicating that excessive online engagement heightens vulnerability to negative social interactions within digital environments.

Beyond these specific risk domains, the findings also show that internet addiction is linked to broader personal and social difficulties, including challenges related to academic functioning, social withdrawal, and behavioral regulation. While not all lifestyle-related outcomes showed equally strong statistical relationships, the overall pattern suggests that internet addiction has a cumulative impact that extends beyond isolated behaviors and affects adolescents’ daily functioning and social integration.

The implications of this study are important for educational institutions, families, mental health professionals, and policymakers. Schools are encouraged to integrate digital well-being education and early screening for problematic internet use, while families play a critical role in guiding healthy online habits and time management. At the policy level, targeted awareness programs and youth-centered digital literacy initiatives are necessary to address the growing psychological and social risks associated with excessive internet use.

Future research should consider longitudinal designs and the inclusion of moderating factors such as coping strategies, family support, and offline engagement to better capture the long-term and dynamic effects of internet addiction. Overall, this study emphasizes that the internet itself is not inherently harmful; rather, the manner, intensity, and purpose of its use significantly shape adolescents’ psychological health and social

development. Promoting balanced, informed, and responsible internet use is therefore essential to supporting healthier outcomes for young people in an increasingly digital society.

### **LIMITATION**

Despite providing valuable insights into the risks associated with internet addiction among Malaysian youths, this study has several limitations that should be acknowledged. First, the use of a convenience sampling technique and a relatively small sample size of 150 respondents recruited through social media platforms may introduce selection bias. Participants who are more active online are likely to be overrepresented, which may inflate the observed relationships between internet addiction and related risk behaviors and limit the generalizability of the findings to the broader youth population in Malaysia.

Second, the reliance on self-reported data collected through online questionnaires raises concerns regarding response accuracy. Social desirability bias and recall bias may have influenced participants to underreport or overreport their internet usage patterns, mental health symptoms, and online risk behaviors. As a result, the measured associations may not fully reflect actual behavior or psychological conditions.

Third, the study did not control for potential confounding variables that could influence both internet addiction and its associated risks, such as personality traits, family environment, socioeconomic background, or pre-existing mental health conditions. The absence of these controls may affect the precision of the relationships identified in this study.

In addition, the cross-sectional research design allows for the identification of statistical associations between internet addiction and outcomes such as mental health risk, pornography exposure, and cyberbullying involvement, but it does not permit causal inference. Longitudinal research designs are necessary to determine the directionality and long-term effects of internet addiction on these risk domains.

Finally, the study primarily employed quantitative Likert-scale measurements, which limit deeper exploration of individual experiences, emotional processes, and coping strategies related to excessive internet use. Future research may benefit from mixed-methods or qualitative approaches, such as interviews or focus groups, to capture the nuanced psychological and social mechanisms underlying internet addiction among youths.

Despite these limitations, the study provides an important empirical foundation for understanding internet addiction and its associated risks among Malaysian adolescents and offers meaningful direction for future research and intervention efforts.

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### **DECLARATION OF CONFLICTING INTERESTS**

Regarding the research, writing, and publication of this work, the authors hereby declare that they have no potential conflicts of interest. There were no financial or commercial



ties that would have created a conflict of interest, and the study was carried out independently.

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