

Review Paper

**Factors Influencing Internet Addiction Among University Students in Malaysia:
A Review of the Literature**

Muhammad Amirul Zaidi¹ & Nurzahirah Zainal^{2*}

¹Centre for Research in Psychology and Human Well-Being, Faculty of Social Sciences and Humanities,
Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

²Department of English Language, Centre of Languages and General Studies,
Universiti Islam Melaka, 78200, Melaka, Malaysia

*Corresponding Author: nurzahirah@unimel.edu.my

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Abstract: Internet addiction is an increasing public concern, especially among university students. Excessive Internet use for social networking, online gaming, and browsing is a defining feature of this issue. It can interfere with social connections, mental health, and academic achievement. Due to their increased access to digital devices, social networking, and online entertainment, university students in Malaysia are susceptible to this addiction. Internet addiction is on the rise due to several factors, including peer pressure, social isolation, academic pressure, and mental health issues. The drive for social approval and the normalization of excessive Internet use through sites like social networking and competitive gaming exacerbate the issue significantly. Majority of the university students in Malaysia display at least mild symptoms of Internet addiction. They find it challenging to strike a balance between their academic obligations and their leisure online activities due to the ubiquitous availability of the Internet via smartphones and campus networks. Existing studies on Internet addiction among university students in Malaysia have explored psychological, social, behavioral, and technological factors, often in isolation. However, there is a gap in exploring the integrated impact of these factors and their coexistence within the university context. Hence, this study aims to provide a comprehensive review of these contributing factors among university students in Malaysia. Universities should take some initiatives to introduce digital literacy workshops, digital detox programs, and peer support groups to combat this issue. In the digital age, these initiatives will support improved mental health, academic achievement, and general well-being.

Keywords: Internet addiction, obsessive Internet use, social networking, university students, digital habit

Introduction

Internet addiction, also known as problematic Internet use (PIU), refers to the uncontrollable and harmful use of the Internet such as social networking, online gaming, shopping, and constant browsing (San et al., 2024). According to Nazari et al. (2024), this form of addiction has gained significant attention for its impact on people's relationships, mental health, and overall daily functioning. It has become increasingly recognized as a serious public health issue (Ajithabai, 2024; Mishra et al., 2024). Moreover, Preeti et al. (2024) state that social networking platforms, immersive gaming environments, and the endless cycle of browsing are a few examples of the ways individuals spend unhealthy amounts of time online. This often comes at the expense of more meaningful in-person interactions, careers, education, and even personal well-being. With individuals

becoming more engrossed in their online lives, the boundaries between virtual and physical reality start to blur, leading to a range of negative consequences (Ramdani et al., 2024). In many cases, these individuals experience a decline in their emotional health, with feelings of anxiety, loneliness, and a general reduction in overall life satisfaction becoming more common. The constant pressure to stay connected can further intensify these feelings as people become increasingly consumed by the need to remain online Chauhan et al., 2024; Man & Zhang, 2024). This compulsion can manifest in sleep disturbances, physical inactivity, and the neglect of crucial responsibilities in the real world. Jiang et al. (2024) state that the growing dependence on the digital realm represents a larger societal struggle to find a balance between the undeniable benefits of the Internet and the need to maintain healthy, fulfilling offline habits. The shift in how individuals engage with the world around them raises questions about the negative effects on both individual well-being and society as a whole (Tiamiyu et al., 2024).

According to Joseph et al. (2021), Internet addiction can be defined as excessive, maladaptive Internet use that leads individuals to neglect various important aspects of their lives across multiple domains. The core issue with Internet addiction lies in its ability to disrupt the balance of daily living (Milkova et al., 2022). Moreover, Lai and Cheung (2024) support this statement by stating that Internet use becomes truly problematic when it reduces the ability to maintain good connections with others, fulfill daily obligations, and ensure overall well-being. This often includes activities such as socializing, gaming, or endless browsing, which progressively consume a person's time and energy (Chauhan et al., 2024; Tiamiyu et al., 2024). These scenarios do not just take a toll on one aspect of an individual's life, but rather significantly impair a wide range of social, professional, and personal spheres (Ajithabai, 2024). In addition, Internet addiction is also particularly harmful because of the broad spectrum of online activities that contribute to it, including gaming, social networking, and general Internet browsing (Marin et al., 2024). These activities can lead to a deterioration in mental and emotional health, the weakening of social bonds, and a decline in overall life satisfaction. The impact is affecting an individual's capacity to maintain a balanced and healthy lifestyle (Salpynov et al., 2024).

In terms of the impact of Internet addiction toward university students, they have a high tendency to develop Internet addiction due to a complex confluence of environmental, psychological, social, and developmental factors (Aquino & Kimong, 2022; Badawi et al., 2024). Moreover, Mohd Azhari et al. (2024) state that as young adults navigate the shift from high school to higher education, they face a significant increase in independence. This newfound autonomy can lead to changes in behavior. They are frequently exposed to new social environments such as meeting new people, adapting to different academic expectations, and engaging with diverse peer groups (Nik Jaafar et al., 2021). These new social settings can be overwhelming. Some students may turn to online spaces as a means of coping with feelings of loneliness, isolation, or social anxiety (Joorabchi et al., 2022). The ease of access to technology further exacerbates the situation (Ashari et al., 2022). Students have almost constant access to the Internet through their laptops, smartphones, and other devices (Ahmad et al., 2024). Saidi et al. (2020) support this statement by stating the online world offers a range of distractions; whether for socializing, gaming, shopping, or entertainment. Additionally, the pressures of academic life, such as examinations, assignments, and the competitive environment, can drive some students to seek solace in online activities (Subramaniam et al., 2024). This combination of factors creates a perfect storm for the development of Internet addiction. It is more challenging for students to maintain a healthy balance between their online and offline engagements (Mohd Azhari et al., 2024; Shanshan et al., 2024). As a result, university students are particularly at risk for this addictive behavior, which can have long-lasting effects on their academic performance, mental health, and overall well-being.

As the digital era develops and presents young adults with both benefits and challenges, Internet addiction among Malaysian university students has grown in concern. University students are spending more and more time online, frequently at the expense of their social lives, academic performance, and physical health (Shari et al., 2024; Shanshan et al., 2024). This problem is caused by several things, such as peer pressure, social isolation, academic pressure, and poor time management. According to Subramaniam et al. (2024), further exacerbating the situation are personality features, mental health conditions, and the demand for social media affirmation. Addressing and lessening the impacts requires an understanding of these

underlying elements as Internet use becomes more ingrained in daily life (Yanti et al., 2024). There are several key factors leading to the rise of Internet addiction among university students in Malaysia. The pressure to perform well in exams, complete assignments, and maintain a strong academic record often leads students to seek distractions or stress relief online (Manjit Singh et al., 2024). Moreover, social isolation also plays a major role toward students who may turn to the Internet to fulfill their social needs (Nik Jaafar et al., 2024). The allure of online gaming, social media interactions, and even online shopping can become more appealing than engaging in face-to-face social activities or focusing on academic responsibilities (Ismail et al., 2021). Furthermore, Can and Onan (2023) state that peer influence and the normalization of excessive Internet use within certain social circles may perpetuate the cycle of addiction.

In addition, personality traits and mental health challenges contribute to the susceptibility of university students to Internet addiction. According to Nazari et al. (2024), students dealing with anxiety, depression, or low self-esteem may find comfort in the virtual world. The accessibility and constant connectivity of the Internet, particularly through smartphones, make it difficult for university students to regulate their online activities, often blurring the line between productive use and addiction (Arifin et al., 2023). According to Buntaran et al. (2024), the inability to have self-control in managing their online activities may worsen the students' Internet addiction. As a result, university students may struggle with managing their time effectively, leading to unhealthy habits that can impact their academic performance, physical health, and personal relationships (Zulkifli & Zainal Abidin, 2023). Addressing these factors is essential in tackling this issue in Malaysia. Existing studies on Internet addiction among university students in Malaysia have explored psychological, social, behavioral, and technological factors, often in isolation. However, there is a gap in exploring the integrated impact of these factors and their coexistence within the university context. Hence, the purpose of the study is to provide a comprehensive review of the integrated influence of psychological, social, behavioral, and technological factors of Internet addiction among university students in Malaysia.

Literature Review

1. Global Trends in Internet Addiction Among University Students

Social networking, online gaming, mobile phone use, and streaming services have all grown more commonplace as technology develops, which has resulted in university students spending more time online (Chauhan et al., 2024). Internet addiction has surfaced as a worldwide issue that crosses regional and cultural limits, impacting individuals from various demographic and socioeconomic backgrounds. The fundamental issues are universally recognized although the contributing factors may vary due to differences in technology infrastructure, cultural norms, and socioeconomic status of the countries. In China, majority of the university students are more linked than ever due to the growth of digital platforms. Many of them become engrossed in the virtual world (Jiang et al., 2024). Mishra et al. (2024) support the statement by stating that social networking sites like Facebook, Instagram, Snapchat, and TikTok are among the most addicting of these online platforms. A similar finding by Marin et al. (2024) shows that many university students in Brazil are distracted from their academic obligations by the never-ending scroll of social media feeds or by the immersive world of online games, films, and other forms of entertainment (Marin et al., 2024). As hours are spent in these digital settings, this change in concentration frequently results in a drop in productivity (Salpynov et al., 2024). This study is supported by Mat Isa and Mohd Hoesni (2024) which claim that students with high digital dependence are associated with poor time management and low academic performance. As a result, university students nowadays face the difficulty of striking a balance between the advantages of online resources and the possible drawbacks of excessive screen time (Joseph et al., 2021).

Recent research has shown that Internet addiction is increasingly associated with several mental health conditions, including anxiety, depression, and sleep difficulties (Chauhan et al., 2024). Furthermore, low self-esteem, feelings of inadequacy, cyberbullying, and a fear of missing out (FOMO) are among the difficulties that are made worse by regular use of social media platforms (Joseph et al., 2021; Ajithabai, 2024). Mishra et al. (2024) also support this finding by claiming that excessive Internet use not only has a detrimental impact

on mental health but also shatters interpersonal relationships in real life. It eventually makes communication difficult and causes social isolation. This can exacerbate loneliness and exacerbate mental health issues (Ismail et al., 2021). It is challenging to discern between time spent online for academic and personal objectives (Arifin et al., 2023). Badawi et al. (2024) also support the statement by stating that finding a good balance between their personal and academic digital involvement is becoming more challenging for many students. Their unhealthy digital habits reduce their productivity and hamper their time management skills (Milkova et al., 2022). Consequently, it has become a significant concern as it threatens academic success, creating a vicious cycle that is difficult to break (Nik Jaafar et al., 2021).

In addition, university students who are addicted to the Internet may become socially isolated due to their preference for online communication and decreased in-person encounters (Lai & Cheung, 2024). They become engrossed in social networking, online gaming, and streaming services. It reduces opportunities for face-to-face interaction, including going to classes, taking part in group activities, and hanging out with friends and family (Man & Zhang, 2024). Students may retreat from their social networks, feeling emotionally cut off from their classmates. Similarly, a study by Yanti et al. (2024) also report that students experience feelings of inadequacy because of their continuous use of online platforms. Furthermore, university students are frequently deterred from facing real-world difficulties by the escapism that the Internet provides (Ramdani et al., 2024). They may suffer from increased anxiety, depression, and a lack of desire to engage in offline activities as this isolation worsens over time (San et al., 2024). Meanwhile, Joseph et al. (2021) claimed that Internet addiction does not universally lead to social isolation and its effects vary among individuals. They state that the use of the Internet is highly personalised. The proper way to utilise it is to achieve a set goal in a sensible timeframe without any cognitive or emotional strain. Certain students manage to control their Internet usage while others find it difficult to self-regulate. Hence, Internet addiction is a critical issue that needs to be addressed globally as it impedes mental health and diminishes chances for deep connections.

2. Prevalence and Trends in Malaysia

Recent research shows that Internet addiction is becoming a detrimental issue among Malaysian university students. A rising problem among Malaysian university students is shown by the fact that most of them have signs of Internet addiction (Ismail et al., 2021; Subramaniam et al., 2024; Mohd Azhari et al., 2024). According to Joorabchi et al. (2022) and Ashari et al. (2022), this indicates that a considerable number of students struggle with excessive Internet usage, impacting their everyday activities and academic performance. Interestingly, the age group of 18 to 24 years old, which corresponds to the average age range of university students, is the one where Internet addiction is most prevalent in Malaysia (Badawi et al., 2024). Greater independence, a growing dependency on electronic gadgets, and a propensity to spend more time online for socializing and enjoyment are characteristics of this stage of life (Mohd Yusof et al., 2022). University students in Malaysia frequently spend long hours on social media, online gaming, and streaming services as they make the transition from adolescence to adulthood (Nik Jaafar et al., 2021; Ismail et al., 2021). They find it difficult to properly manage their time and strike a good balance between online and offline activities (Ashari et al., 2022).

Facebook, Instagram, Twitter, and TikTok are popular social networking sites among Malaysian university students (Saidi et al., 2020; Subramaniam et al., 2024). According to Joorabchi et al. (2022), these platforms are especially good at grabbing students' interest, which frequently results in compulsive monitoring and extended use. Many university students spend hours reading through social media feeds, taking part in online forums, or looking for approval from likes, shares, and comments; which are major contributors to Internet addiction (Ismail et al., 2021). These online continual needs for acceptance can have a serious negative impact on students' mental health. Many have reported feeling more depressed, anxious, and low in self-worth (Chong et al., 2021). These problems can be made worse by the pressure to uphold an ideal online identity, which can cause harmful social comparisons (Badawi et al., 2024). When they contrast their own lives with the portrayed ideal lives of others, they frequently feel inadequate, isolated and lonely (Manjit Singh et al., 2024). As a result, excessive social media use harms university students' emotional and mental well-being in addition to causing Internet addiction (Arifin et al., 2023).

In terms of online game-related addiction in Malaysia, e-sports has grown significantly in popularity in recent years (Chong et al., 2021; Zulkifli & Zainal Abidin, 2023). Many university students view gaming as a possible career path since it is a source of entertainment and a professional endeavor (Kutty et al., 2022). According to Joorabchi et al. (2022), students' interest in gaming has grown and they are more dedicated to improving their skills. However, as they have more platforms to express themselves through gaming, this increased popularity also promotes unhealthy consumption patterns and an over-reliance on digital entertainment (Mohd Yusof et al., 2022). Ashari et al. (2022) claim that students who develop a gaming addiction frequently put gaming before other important pursuits such as studying, eating healthily, or exercising. They consequently neglect their academic obligations resulting in missed assignments and subpar exam scores. Moreover, long gaming sessions also cause them to have disturbed sleep habits (Nik Jaafar et al., 2021). It can be challenging to stop the pattern of neglecting their physical health and losing focus in class. Hence, it is noteworthy that it is a serious issue that should be tackled systematically by addressing the factors.

Methodology

1. Data Selection

This article is based on an extensive review of relevant published literature, which was gathered through reputable academic databases such as Google Scholar, ResearchGate, Science Direct, and Scopus. These platforms offer a vast array of scholarly articles and publications that are crucial to understanding the issue, particularly among university students. The databases provide numerous journal articles that focus specifically on the prevalence, factors, and impacts of Internet addiction within university settings, making them valuable resources for this review. To ensure the relevance of the gathered materials, a comprehensive keyword search was conducted using terms such as ("factors of Internet addiction among university students" OR "causes of Internet addiction among university students" OR "factors of problematic Internet use among university students"). These keywords were carefully chosen to capture a wide range of publications that explore various facets of the issue of Internet addiction in the academic context.

2. Data Analysis

Inclusion and exclusion criteria need to be established to verify the eligibility of the articles, which are the types of literature, language, and timeframe. The search strategy was designed to be highly specific, with a particular focus on journal articles related directly to the topic. To streamline the results and maintain the integrity of the review, certain document types such as proceeding, book chapters and notes were excluded from the search results. Instead, the focus was placed exclusively on the final stage article category, which included peer-reviewed articles that contribute original research and findings to the field. Furthermore, the review was limited to publications written in English as it predominates in the academic literature on the subject. This scope is focused to ensure consistency and accessibility for the authors and readers. Regarding the timeframe of the articles, Internet addiction is a phenomenon significantly connected to technological advancements. Restricting the timeframe to research published in the past decade (2015-2025) guarantees that the review captures the latest trends in the technology utilization and its effects on university students. Table 1 represents the inclusion and exclusion criteria of the resources.

Table 1. The inclusion and exclusion criteria of the resources

Criterion	Inclusion criteria	Exclusion criteria
Literature type	Peer-reviewed article	Proceeding, book chapters, notes
Language	English	Non-English
Timeframe	2015-2025	Before 2015

By filtering the search results, the authors aimed to create a well-defined, high-quality selection of publications that would provide the most relevant and insightful information on the factors influencing this issue, particularly in Malaysia.

The Findings

1. Psychological Factors Contributing to Internet Addiction

Internet addiction is influenced by the need for social approbation (Mohd Yusof et al., 2022). Many students seek online validation to boost their self-esteem. However, they may experience dissatisfaction, worry, and sadness if they do not receive the expected level of involvement or recognition. This can lead to compulsive online behavior such as publishing additional information, checking alerts, or participating in online activities (Saidi et al., 2021). The cycle may become more harmful as they turn to virtual recognition for comfort instead of in-person relationships (Mohd Azhari et al., 2024). According to Manjit Singh et al. (2024), students with low self-esteem are particularly susceptible to the negative effects of online comparison. It is because social networking sites often provide romanticized depictions of people's lives, omitting their hardships and flaws. This can make the students feel inadequate and self-conscious (Nik Jaafar et al., 2021).

Moreover, 83.5% of Malaysian university students in a study use the Internet as a coping mechanism to escape real-life emotional struggles (Ismail et al., 2021). This is due to the demanding academic and social life that often overwhelms them. Gaming and social media browsing provide a temporary respite, allowing them to forget their problems and immerse themselves in a more controllable world (Zulkifli & Zainal Abidin, 2023). However, this emotional avoidance can have long-term consequences, leading to Internet addiction and compulsive use of online platforms (Chong et al., 2021; Arifin et al., 2023). 56.4% of Malaysian university students in a study by Mohd Azhari et al. (2024) use gaming or social media to manage negative emotions, creating an illusion of control or security. It often prevents them from addressing underlying emotional issues. Hence, this exacerbates their dependence on digital distractions.

In addition, one of the main psychological factors contributing to Internet addiction among university students in Malaysia is the constant need to stay up to date. 60% of Malaysian university students in a study feel pressured to be active on social media and other online platforms all the time to stay up to date with conversations, events, and trends (Kutty et al., 2022). According to Zulkifli and Zainal Abidin (2023), excessive online activity and compulsive gadget checking might result from this ongoing demand to stay current. Social influences frequently serve to promote the fear of missing out (Ahmad et al., 2024). They may feel excluded if they are not as involved in online debates or experience sharing as their peers (Nik Jaafar et al., 2021). The confluence of psychological factor such as the constant need to stay online and social element such as peer pressure influence the university students to be more vulnerable. This scenario increases their use of the internet as a social outlet and coping strategy. Hence, these are among psychological factors that should be tackled holistically.

2. Social Factors Contributing to Internet Addiction

One of the social factors contributing to Internet addiction among university students in Malaysia is peer influence and social norms. It is significantly influenced by their peers (Ashari et al., 2022). According to Ismail et al. (2021), digital communication and social media platforms become indispensable socialization tools. To fit in with social groups and follow trends, university 68.9% students in a study by Mohd Azhari et al. (2024) feel under pressure to maintain their connections on social media sites. Furthermore, peer pressure also causes them to check social media frequently to stay up to date with friends, events, and conversations. They have a strong interest in online gaming and other online communities, such as fan groups and discussion forums (Ashari et al., 2022). They may feel pressured to be active to maintain relationships with their friends or social circles, which can lead to addictive behaviors (Kutty et al., 2022).

Moreover, Internet addiction is also caused by academic pressure, which consequently causes procrastination (Chong et al., 2021). The Internet can easily divert attention from studying or finishing homework because of its plethora of leisure possibilities (Arifin et al., 2023). Students frequently use social

media or online gaming to get rapid satisfaction, which causes them to put off their academic obligations (Ashari et al., 2022). As a coping mechanism for stress or anxiety, students may utilize the Internet excessively during examination week or homework deadlines. This conduct can lead to the continuation of bad Internet habits and is frequently motivated by a desire for temporary respite from academic pressure (Mohd Yusof et al., 2022).

Furthermore, celebrities and social media influencers have a big impact on how university students in Malaysia use the Internet (Subramaniam et al., 2024). They spend more time on social media to match the ideal lifestyles of influencers (Manjit Singh et al., 2024). As they strive for a comparable degree of fame, this can result in a vicious cycle of continuous social media checking (Badawi et al., 2024). In addition, Internet addiction is also caused by the desire for social capital and fame. According to Salpynov et al. (2024), students spend too much time producing and distributing content to become famous or acquire social capital on online sites. Internet addiction may result from this fixation with online celebrities. A vicious cycle of social media illusions and psychological stressors such as the pressure to be a perfect online persona results in students using the Internet to satisfy their emotional needs. Thus, these are some of the social factors which contribute to this issue.

3. Behavioral Factors Contributing to Internet Addiction

One of the behavioral factors is the lack of time management skills. A lot of university students in Malaysia have trouble efficiently managing their time (Subramaniam et al., 2024). They may spend hours on social networking, gaming, or other online activities without recognizing how much time has been squandered if they lack disciplined time management skills (Ahmad et al., 2024). Ismail et al. (2021) claim that Internet addiction is a result of this imbalance between online recreational activities and academic responsibilities. Although students may initially use the Internet for learning, they may eventually turn it into a source of unproductive activities. For instance, during studying, they could feel compelled to check their emails or engage in online discussions. The absence of time limits encourages excessive Internet use even more (Saidi et al., 2020).

In addition, another behavioral factor influencing Internet addiction among university students in Malaysia is the escalation of online content consumption. According to Joorabchi et al. (2022), university students may use streaming services such as Netflix, YouTube, or other video-sharing websites to binge-watch movies, TV series, or videos. They spend more than five hours daily reading online information because of the autoplay feature and the availability of endless content. This conduct has the potential to result in hazardous patterns of Internet usage (Ashari et al., 2022). Platforms such as YouTube and TikTok provide recommendations or endless streams of brief films. Due to the addictive nature of algorithm-driven information, it can be hard for them to break out from a pattern of incessant scrolling or viewing (Nik Jaafar et al., 2021).

Internet addiction is also believed to happen due to unhealthy coping strategies and dependency (Ismail et al., 2021). Students may become dependent on the Internet as a coping mechanism when they experience mental hardship, academic pressure, or personal difficulties (Arifin et al., 2023). They also eventually believe that they are unable to operate normally without it. According to Saidi et al. (2020), a vicious cycle of excessive Internet use results when it is used as a crutch to deal with stress, loneliness, or boredom. Some students utilize the Internet as a coping strategy during stressful events such as tests, assignments, or social challenges (Mohd Azhari et al., 2024). Online networking and digital entertainment may become addictive activities as a result of the drive to escape or avoid stress. Psychological elements such as inadequate self-control and escapism combine with behavioral inclination such as neglect of responsibilities, prompting the students to use Internet excessively. Hence, these are among the behavioral factors that lead to Internet addiction among university students in Malaysia.

4. Technological Factors Contributing to Internet Addiction

Among the technological factors affecting Internet addiction among university students in Malaysia is the ubiquity of mobile devices (Chong et al., 2021). University students always have access to social media,

entertainment, learning materials, and communication channels (Arifin et al., 2023; Subramaniam et al., 2024). This is supported by Ismail et al. (2021) who state that due to its portability and ease of usage, it can be challenging to unplug, which leads to extended screen time and possible addiction. Having access to dependable and quick Internet connections, makes using social media and mobile applications more difficult to restrict (Mohd Azhari et al., 2024; Manjit Singh et al., 2024).

Another technological factor that should be considered is the constant reliance on online learning platforms (Saidi et al., 2020). Particularly in post-pandemic Malaysia, the increased reliance on online learning systems such as Moodle, Google Classroom, or Zoom may be a contributing factor to technology addiction (Mohd Azhari et al., 2024). Although these platforms are crucial for education, students may use them excessively for amusement and socializing (Zulkifli & Zainal Abidin, 2023). Moreover, having access to lecture notes, assignments, and course materials might encourage a constant engagement with the topic, resulting in more screen time and less in-person interaction (Badawi et al., 2024).

Next, Internet addiction among university students in Malaysia is also believed to occur due to the lack of technological regulation (Mohd Azhari et al., 2024). They use their gadgets for both academic and non-academic purposes as there is no official limit on screen time in educational institutions (Nazari et al., 2024). Moreover, many students find it difficult to control their behavior when their gadgets are necessary for academic work (Zulkifli & Zainal Abidin, 2023). According to Joorabchi et al. (2022), it might be challenging to concentrate on academic work or partake in non-digital social activities due to the incessant stream of notifications and the temptation to check social media. A cycle of reliance is created when psychological stress combines with social isolation and the widespread use of Internet technology, leading students to seek solace and diversion online. Thus, these are some of the technological factors which contribute to Internet addiction among university students in Malaysia.

Discussion

Concern over Internet addiction among university students, especially in Malaysia is on the rise. In the digital era, it is more challenging to distinguish between academic and recreational web use. This is supported by Mohd Azhari et al. (2024) who state that university students are more likely to develop obsessive Internet use habits since university life frequently entails increased freedom and exposure to new social contexts. Moreover, Marin et al. (2024) and San et al. (2024) support the statement by claiming that academic obligations and in-person social connections can frequently be eclipsed by the temptation of online gaming, social media activity, and entertainment. Students' bad digital habits may severely lead to a drop in their academic performance, strained relationships, and worse mental health (Milkova et al., 2022; Mat Isa & Mohd Hoesni, 2024). The complicated relationship between digital consumption and well-being is further highlighted by the fact that excessive Internet use among students has been connected to mental health problems such as anxiety, depression, and social isolation (Joseph et al., 2021; Milkova et al., 2022; Tiamiyu et al., 2024).

In Malaysia, the incidence of Internet addiction is especially noteworthy (Kutty et al., 2022; Arifin et al., 2023; Chong et al., 2024). Due to the increasing availability of smartphones, computers, and campus networks, students frequently spend hours online, putting social media, gaming, and web browsing ahead of their academic responsibilities. As they use social media to get reinforcement through likes, comments, and shares, the trend is made worse by their need for social validation (Saidi et al., 2021; Ahmad et al., 2024). This starts a vicious loop where students' self-worth is largely reliant on online validation. It may result in mental health issues such as anxiety, despair, and feelings of inadequacy. Furthermore, the prevalence of competitive gaming and e-sports in Malaysia has normalized fostering a culture in which digital consumption is not only accepted but also promoted (Badawi et al., 2024; Subramaniam et al., 2024). The combined impacts of psychological distress, social isolation, and the addictive qualities of digital technologies lead to an increased vulnerability to Internet addiction, with each element intensifying the effects of the others.

Internet addiction among university students in Malaysia is caused by a variety of factors, including psychological, social, behavioral, and technological factors. In a psychological sense, students may use the Internet to temporarily escape from emotional difficulties, social isolation, or academic pressure (Mohd Yusof

et al., 2022; Saidi et al., 2020; Mohd Azhari et al., 2024). To overcome this issue, students can handle emotional obstacles in a supportive setting by connecting with friends who have similar struggles or by seeking professional assistance through counselling programs. In terms of social factor, peer pressure is a major social factor in promoting excessive Internet use since students frequently feel pressured to follow online trends and maintain relationships with their social networks (Ashari et al., 2022; Ismail et al., 2021; Kutty et al., 2022). To curb this issue, they can participate in extracurricular activities, clubs, and study groups where they can interact with friends and peers in person. Reliance on online interactions as the only means of social connection can be reduced by fostering stronger relationships in real life. On a behavioral level, students who struggle with time management frequently procrastinate, spending hours online rather than concentrating on their schoolwork (Subramaniam et al., 2024; Ahmad et al., 2024; Joorabchi et al., 2022). To improve this situation, they should improve their self-control in managing their online activities (Buntaran et al., 2024). They should take an initiative to establish a daily schedule for various activities such as studying, breaks, and leisure. By designating the routine, they can resist the urge to overuse the Internet. In terms of technological factor, students find it more and more difficult to unplug due to the widespread use of mobile devices and the continuous availability of online content via fast Internet connections (Chong et al., 2021; Arifin et al., 2023; Zulkifli & Zainal Abidin, 2023). They should make some efforts to plan digital detox days, which are whole days or weekend getaways from electronics. They can reestablish their connection with technology and resume offline activities with the aid of these intervals.

From the findings, it can be highlighted that university students are more susceptible to Internet addiction due to the complicated environment created by the convergence of personal psychological challenges, cultural norms, and technical accessibility. These elements work together to produce a perfect storm for Internet addiction. Recognizing the detrimental effects of Internet addiction and taking proactive measures to combat it will help students develop better online habits and enhance their general wellbeing. It is essential to acknowledge that the Internet provides valuable advantages when utilized in moderation. Mohd Azhari et al. (2021) state that increased Internet usage allows access to educational materials, improves communication, and promotes networking possibilities. Arifin et al. (2023) support their statement that increased Internet use can facilitate personal growth and academic advancement. Therefore, it is crucial to use the Internet responsibly to optimize advantages and minimize any potential drawbacks.

Conclusion

In conclusion, university students' Internet addiction is a serious and growing problem that is made worse by the growing accessibility of digital gadgets and online resources in the linked world of today. This study provides important insights into the interplay of psychological, social, behavioral, and technological factors affecting Internet addiction among university students. It offers a comprehensive review on the impacts of these factors towards university students' well-being and academic success. It also has the potential to guide future interventions and policy creation in higher education.

To address this issue, a comprehensive strategy that promotes healthy digital habit should be formulated. Universities should consider proactive measures to introduce compulsory digital literacy workshops that teach students about responsible online behavior, the dangers of excessive Internet use, and methods for achieving a balanced digital lifestyle. These initiatives may involve workshops focused on time management and digital detoxification. Moreover, in order to encourage students to disconnect from their gadgets, universities may adopt digital detox initiatives such as planning frequent "offline days". This will help foster a healthier relationship with technology. Next, universities can also promote peer support groups where peers assist each other in managing Internet usage. It can be a powerful approach to address Internet addiction in a healthy manner. Future research on Internet addiction among university students could explore on how Internet addiction impacts university students' involvement in online learning settings. Comprehending the effects of highly-Internet dependent class setting on academic performance in online compared to traditional environments may offer valuable insights for the future research.

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References

- Ahmad., N.F., Engku Kamarudin., E.M., Mahmud., M.I., Afdal., A., Mohd Noor., A., Mohd Alam., A.P. (2024). Internet addiction and depression among students at residential college: Readiness to seek counselling services. *Asian Journal of University Education*, 20(1), 1-14.
- Ajithabai., M.D. (2024). Internet addiction: A literature review. *International Journal of Transactional Analysis Research*, 15 (1), 28-34.
- Aquino., A.P.S., & Kimong., P.J. (2022). Boredom and distress tolerance on problematic Internet use among public university students. *Malaysian Journal of Social Sciences and Humanities*, 7(5), 1-13. <https://doi.org/10.47405/mjssh.v7i5.1477>.
- Arifin., S., Kamaruddin., S.H., Azlan., S.C., Nawli., R.M. (2023). The prevalence of Internet addiction among university students in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 13 (11), 378-388.
- Ashari., Z.M., Hassan., H.S., Zainudin., N.F., & Jumaat., N.F. (2022). Internet addiction and its relationship with happiness and life satisfaction among university students. *Sains Humanika*, 14(3), 1-8.
- Badawi., M.A.E., Aminudin., N.S., Nodrin., M.H.I., Gunasegeran., G., Mohd Ridzuan., N.B., Alabed., A., & Abdalqader., M.A. (2024). A cross-sectional study on social media addiction and its relationship with stress and loneliness. *Malaysian Journal of Public Health Medicine*, 24(2), 223-230.
- Buntaran., F.A.A., Abd Kadir., N.B., & Zakaria., S.M. (2024). The mediating role of self-control in the link between internet addiction and depression among Indonesian adolescents. *e-Bangi: Journal of Social Sciences & Humanities*, 22(1), 329-341. <https://doi.org/10.17576/ebangi.2025.2201.27>.
- Can, H., & Onan, N. (2023). Social efficacy and Internet addiction among university students: A descriptive and correlational study. *Addicta: The Turkish Journal on Addictions*, 10(2), 1-7. <https://doi.org/10.5152/addicta.2023.23031>.
- Chauhan., S.P., Barman., J.D., Sahu., P., & Sahu., D. (2024). A review paper on the impact of Internet addiction on the level of procrastination of university undergraduate students. *The International Journal of Indian Psychology*, 12(3), 661-665. <https://doi.org/10.25215/1203.063>.
- Chong, K. L., Abdul Nifa, F. A., & Peh, W. C. (2021). Factor contributing to Internet addiction and its influence on academic procrastination behavior among UUM students. *Journal of Governance and Development*, 17(2), 61-75.
- Ismail, N., Tajjudin, A.I., Jaafar, H., Nik Jaafar, N.R., Baharudin, A., Ibrahim, N. (2021). The relationship between Internet addiction, Internet gaming and anxiety among medical students in a Malaysian public university during COVID-19 pandemic. *Int. J. Environ. Res. Public Health*, 18(11870), 1-12.
- Jiang., Y., Joshi., D.R., & Khanal., J. (2024). From clicks to credits: Examining the influence of online engagement and Internet addiction on academic performance in Chinese universities. *International Journal of Educational Technology in Higher Education*, 21(41), 1-26. <https://doi.org/10.1186/s41239-024-00473-2>.
- Joorabchi., J., Namayandeh., T., Afshariyan., A., Saber., M., & Ramin., A. (2022). Internet addiction mediates the relationships among Internet skill and gratification of using Internet with social isolation among Malaysian youths: The moderating roles of gender and race. *International Journal of Education and Development using Information and Communication Technology*, 18(2), 111-126.
- Joseph., J., Varghese., A., Vijay., V.R., Dhandapani., M., Grover., S., Sharma., S., Khakha., D., Mann., S., & Varkey., B.P. (2021). Prevalence of Internet addiction among college students in the Indian setting: A systematic review and metaanalysis. *General Psychiatry*, 34 (100496), 1-12.
- Kutty., R.M., Nik Mahmood., N.H., Masrom., M., Mohdali., R., Wan Zakaria., W.N., Abdul Razak., F., Yahya., H., Ramli., R. & Aris., H. (2022). The influence of Internet addiction and time spent on the

- Internet towards social isolation among university students in Malaysia. *Asian Social Science*, 18 (10), 32-46.
- Lai, C., & Cheung, C. K. J. (2024). The effect of Internet addiction on well-being among university students in Hong Kong. *Psychology*, 15 (2), 1221- 1239.
- Man., C., & Zhang., X. (2024). Factors influencing Internet addiction among university students: The mediating roles of self-control and anxiety. *Acta Psychologica*, 250 (104535), 1-13. <https://doi.org/10.1016/j.actpsy.2024.104535>.
- Manjit Singh., A.K., Iskandar Zulkarnain., A.F., Tan Wei Jun., & Olagoke., S.M. (2024). Problematic Internet use and its impact on mental health in the Malaysian context. *Southeast Asia Psychology Journal*, 12(2), 188-201. <https://doi.org/10.51200/sapj.v12i2.5573>.
- Marin, M.G., Machado,A.B.C., da Silva Freitas.,G., & de Almeida., R.M.M. (2024). Internet addiction, sleeping habits and psychological distress in Brazilian adolescents and young adults. *Psychol. Refl. Crit.*, 37(37),1-9. <https://doi.org/10.1186/s41155-024-00323-0>.
- Mat Isa., M.A.N., & Mohd Hoesni., S. (2024). Hubungan antara ketagihan telefon pintar dan persepsi stres dalam kalangan pelajar universiti [(Relationship between Smartphone Addiction and Perception of Stress among University Students)]. *e-Bangi: Journal of Social Sciences & Humanities*, 21(3), 461-471. <https://doi.org/10.17576/ebangi.2024.2103.35>.
- Milková., E., Kaliba, M., & Ambrožová., P. (2022). Internet addiction in university students – Czech study. *Journal on Efficiency and Responsibility in Education and Science*, 15(2), 94-102. <https://doi.org/10.7160/eriesj.2022.150204>.
- Mishra., J., Behera., M.R, Mitra., R., Samanta., P., Mahapatra., P.K., & Kar., S. (2024). Prevalence and impact of Internet addiction disorder among adolescents and young adults. *The Open Public Health Journal*, 2024 (17): 1-10.
- Mohd Azhari., A.F., Mohd Makhtar., N.H., Isa., R., & Isa., S.N.I. (2024). Internet addiction and depression among adolescents during Covid-19 pandemic in Puncak Alam: A cross-sectional study. *Journal of Health and Translational Medicine*, 27(2), 139-147.
- Mohd Yusof., N.F., Nikmat., A.W., & Suddin., L.S. (2022). Prevalence of problematic Internet use and its association with psychological distress and coping strategies among Universiti Teknologi Mara students during the COVID-19 pandemic. *IIUM Medical Journal Malaysia*, 21 (3), 109-118.
- Nazari., H., Raiesifar., Z., Darabiyani., P., Zarea., K., Ghanbari., S., & Chan., S.W.C. (2024). Epidemiology and related factors of Internet addiction with emphasizing the role of feeling loneliness and interpersonal problems in university students. *Jundishapur J Chronic*, 13(2), 1-7.
- Nik Jaafar., N.R, Bahar., N., Ibrahim., N., Baharudin., A., Wan Ismail., W.S., Sim., S.T., Abdul Aziz., M., & Tan K.A. (2021) Are Malaysian youths overdependent on the Internet? A Narrative Review. *Front. Psychiatry*, 12 (710790), 1-7.
- Preeti., P., Khan., M.H., Mittal., S., & Dhapola., V.S. (2024). The prevalence of Internet addiction and associated factors among undergraduate medical students in government medical college, Almora. *Asian Journal of Medical Sciences*, 15(6), 42-46. <https://doi.org/10.3126/ajms.v15i6.63414>.
- Ramdani., F.Z., Lahlou., L., Merzouki., M., Doufik., J., Oumary., O.E., Akebour., K., Hamri., S., Mouhadi., K., Boujraf., S., Rahioui., H., & Rammouz., I. (2024). Internet addiction, social phobia, substance abuse, and depression in the university setting: A cross-sectional study in the southern region of Morocco. *Frontier Psychology*, 15 (1398989), 1-10. <https://doi.org/10.3389/fpsyg.2024.1398989>.
- Saidi, N. A., Ab Ghaffar, S. F., Chua, Y. S., Ezani, N. N., Zhani, N. S. A., & Singh, T. K. R. (2020). Relationship between stress and lifestyle with Internet addiction among Z generation. *Journal of Tourism, Hospitality & Culinary Arts*, 14(1), 452-459.
- Salpynov., Z., Kosherova., Z., Sarria-Santamera., A., Nurkatov., Y., Gusmanov., A., & Semenova., Y. (2024). The worldwide prevalence of Internet addiction among medical students: A systematic review and meta-analysis. *International Journal of Environmental Research and Public Health*, 21(9), 1-15. <https://doi.org/10.3390/ijerph21091146>.

- San., Ismail., Karsak., H.G.O., Izci., E., & Oncül., K. (2024). Internet addiction of university students in the Covid-19 process. *Heliyon*, 10 (29135), 1-15.
- Shanshan., G., Xue Min., Jing Xu., & Shu Chen. (2024). Correlation of negative emotion, fatigue level, and internet addiction in college students: Implication for coping strategies. *BMC Psychiatry* 24 (264), 1-7. <https://doi.org/10.1186/s12888-024-05711-5>.
- Shari, S., Said, S. M., Abdullah, S. N. A., & Abdul Rahman, A. L. (2024). Digital ties and tangles: The interplay between Internet addiction, mental well-being, and academic outcomes in the modern ages. *International Journal of Modern Education*, 6 (20), 1-17. <https://doi.org/10.35631/ijmoe.620001>.
- Subramaniam., T., Malagobadan., J., Anbalagan., A.J., Poa Tse Yee, Sankar., A., Md Dan., M.F.A, & Mohd Lazaldin., M.H. (2024). Association of symptomatologic depression with social media addiction among university students in Malaysia. *Global Journal of Public Health Medicine*, 6(1), 999–1009. <https://doi.org/10.37557/gjphm.v6i1.252>.
- Tiamiyu., K.A., Adulkareem., H.B. Adulkareem, & Popola., B.O (2024). Internet addiction among university students: Causes, consequences, and the role of cyber counselling. *International Journal of Informatics Information System and Computer Engineering*, 5(1), 114-131. <https://doi.org/10.34010/injiiscom.v5i1.12489>.
- Yanti., F., Wijaya., T., & Sholeh., M. (2024). The impact of smartphone addiction on learning outcomes between male and female university students. *Jurnal Ilmiah Peuradeun*, 12(1): 99-116, <https://doi.org/10.26811/peuradeun.v12i1.1040>.
- Zulkifli., N.F.N., & Zainal Abidin., M.Z. (2023). Exploring social media addiction among Malaysian university students. *Forum Komunikasi*, 18(1), 120-145.