

ความสัมพันธ์ระหว่างภาวะซึมเศร้าและการติดอินเทอร์เน็ตในนิสิตปริญญาตรี Relationships between Depression and Internet Addiction among Undergraduate Students

นิพนธ์ต้นฉบับ

Original Article

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บทคัดย่อ

วัตถุประสงค์: เพื่อประเมินระดับภาวะซึมเศร้าและการติดอินเทอร์เน็ต และทดสอบความสัมพันธ์ระหว่างภาวะซึมเศร้าและการติดอินเทอร์เน็ตในนิสิตระดับปริญญาตรี **วิธีการศึกษา:** การศึกษาเชิงพรรณนาทำในนิสิตปริญญาตรีจำนวน 470 คนในมหาวิทยาลัยแห่งหนึ่งในภาคตะวันออกของประเทศไทย ได้ตัวอย่างโดยการสุ่มแบบแบ่งกลุ่มหลายขั้นตอน เครื่องมือวิจัยที่ใช้ในการเก็บข้อมูลประกอบด้วยแบบสอบถามข้อมูลทั่วไป แบบวัดภาวะซึมเศร้า (CES-D) และแบบวัดการติดอินเทอร์เน็ต เก็บข้อมูลช่วงพฤศจิกายน 2565 ถึงมกราคม 2566 ทดสอบทางสถิติโดยใช้การทดสอบทีและสหสัมพันธ์ของเพียร์สัน **ผลการศึกษา:** กลุ่มตัวอย่างมีภาวะซึมเศร้าระดับปานกลาง (mean = 23.60 คะแนน) และการติดอินเทอร์เน็ตระดับปานกลาง (mean = 65.26 คะแนน) คะแนนภาวะซึมเศร้าระหว่างนิตชายและหญิงและระหว่างนิตที่มีลักษณะครอบครัวแบบเดี่ยวและแบบขยายแตกต่างกันอย่างมีนัยสำคัญทางสถิติ พบว่าภาวะซึมเศร้าและการติดอินเทอร์เน็ตสัมพันธ์ทางบวกอย่างมีนัยสำคัญทางสถิติ โดยมีด้านอารมณ์เศร้า อาการทางกาย และความสัมพันธ์ระหว่างบุคคล ยกเว้นด้านอารมณ์ด้านบวกที่สัมพันธ์อย่างมีนัยสำคัญทางสถิติกับการติดอินเทอร์เน็ต **สรุป:** ภาวะซึมเศร้า โดยเฉพาะด้านอารมณ์เศร้า อาการทางกาย และความสัมพันธ์ระหว่างบุคคลสัมพันธ์กับภาวะติดอินเทอร์เน็ต ควรจัดโปรแกรมเพื่อส่งเสริมให้นิสิตมีการกำกับตัวเองที่เหมาะสมและการปรับตัวต่อใช้อินเทอร์เน็ต รวมถึงการส่งเสริมการคิดทางบวกและการสนับสนุนทางอารมณ์อย่างทันท่วงทีเพื่อลดแนวโน้มการติดอินเทอร์เน็ตในนิสิต

คำสำคัญ: โรคซึมเศร้า; นิสิตระดับปริญญาตรี; การติดอินเทอร์เน็ต

Abstract

Objective: To assess the level of depression and Internet addiction and correlations between depression and Internet addiction among undergraduate students. **Methods:** This descriptive study was conducted among the 470 undergraduate students at one particular university located in the eastern part of Thailand recruited by multi-stage cluster random sampling. The questionnaire collected demographic characteristics and assessed depression (CES-D) and Internet addiction from November 2022 to January 2023. The data were analyzed using independent t-tests and Pearson's correlation analysis. **Results:** The participants had moderate depressive symptoms (mean = 23.60 points) and moderate Internet addiction (mean = 65.26 points). Depression scores were significantly different between men and women and nuclear and extended family structures. Depression had a significantly positive correlation with Internet addiction. Most subscales of depression including depressed affect, somatic activity, and interpersonal relations, except for positive affect, were significantly correlated with Internet addiction. **Conclusion:** Depression especially depressed affect, somatic activity, and interpersonal relations were correlated with Internet addiction. Program to help students to have self-control and adjustment toward Internet use and to have more positive thinking and timely emotional support should be offered to decrease the propensity toward Internet dependence among these students.

Keywords: depression; undergraduate students; internet addiction

Editorial note

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Introduction

The emergence of internet technology has made drastic changes globally. It has become a vital platform for gaining knowledge, social interaction, and information exchange. The Internet of Things (IoT) concept is rising and indicates a paradigm shift in technology and way of life.¹ Furthermore, the Covid-19 pandemic has also exacerbated the current situation and increased internet dependency due to stringent regulations such as social distancing and lockdowns thus mandating the use of digital devices.² In today's era, young

people are highly connected in the Internet world for educational, information sharing, communication, and societal purposes. They have more acquaintances than their parents and have access to more connectivity devices.³ Despite its advantages, it has a darker side where it increases tolerance and dependency and interferes with one's daily life and mental well-being.⁴ Internet addiction is an impulse-control disorder with an absence of an intoxicant and accompanied by features such as uncontrollable Internet use, failed attempts to decline

Internet usage, experiencing negative emotions like emotional distress, sadness, and anxiety while striving to quit, and having preoccupied thoughts with the Internet.⁵ International telecommunication survey estimated about 3.2 billion people Internet users globally.⁶ On average, the time spent online is three to five hours, and young people who stay online for more than four hours are more likely to get addicted to the internet.⁷ Besides, the prevalence rate of internet addiction was reported as 5.2% to 80.2%.⁸ In Thailand, 52.4% of university students were reported to have Internet addiction.⁹ In fact, the rapid proliferation of social media marketed at youths drive them to excessive internet usage and poses a challenge in controlling their online behaviors.¹⁰ Young people tend to use the Internet despite its deleterious consequences, such as physical problems including insomnia, improper dietary habits, vision problems, musculoskeletal pain, and mental health problems such as cognitive impairment, impulsivity, low self-esteem, a sedentary lifestyle, and academic and relationship problems.⁴ Furthermore, Internet addiction affects individual's behavior and their communication patterns with others; also its coexistence with other psychiatric comorbidities could lead to severe addiction.¹¹ Despite the severe repercussions of this phenomenon, it is not officially recognized as a diagnosis in the Diagnostic and Statistical Manual of Disorders-V.¹² However, it is important to address Internet addiction as it is a growing public health problem and thus captures scholarly attention and prompts more research.

Youths pursuing higher education are the more prone and high-risk population for developing Internet addiction.¹³ The students undergo a critical transition from late adolescence to emergent adulthood phase. They experience crucial social and emotional developmental changes; however, this is still immature and evolves, demanding autonomy from the parents and realizing changes in their financial status. While entering university life, the students tend to encounter new people from different economic and cultural backgrounds and try forming or renewing social relationships. The sudden changes in course curriculum, environmental structure, a more emphasis on independent learning could be probable reasons for excessive Internet usage.¹⁴ Currently, Internet addiction is more common among college students leading to severe ramifications.¹⁵ The students' vulnerability to problematic Internet use increases as they attempt to use addictive behaviors to resolve their developmental challenges. Parallely the technological infrastructure in their academic setting, high

parental and societal expectations upon their graduation success, and career development propel them to the virtual world.¹⁶ Also, students are more vulnerable to indulging in risky health behaviors such as substance abuse or a sedentary lifestyle. Even though students experience some health ailments or injuries, they consider themselves healthy and pay less attention to their symptoms.¹⁷ For instance, a meta-analytic study found that university students had an increased prevalence of Internet addiction than other populations. It indicated that students with negative affective states such as depression may have increased Internet addictive tendencies as they tend to use the Internet excessively to combat unpleasant events.⁸ Thus, screening and identifying behavioral addictions among young people at the earlier stages is a requisite to prevent future mental health problems.

Depression refers to persistent sadness, poor appetite, a lack of pleasure in daily activities, and difficulties in establishing rapport. Depressed individuals lack energy, possess low decision-making abilities, and have suicidal ideations.¹² Depression is one of the major psychological factors contributing to Internet addiction and is associated with poorer psychosocial well-being in young people.¹⁸ Often, individuals with depressive symptoms are prone to indulge in risky behaviors and develop substance abuse disorders.¹⁹ Compared to other populations, a higher prevalence of depression was reported at 30.6% among students.²⁰ In Thailand, approximately 3 - 8 million teenagers were at a high risk of depression, and around 40% of undergraduate students were found to have depressive symptoms.²¹ A study indicated depression is stipulated as one of the psychological symptoms of Internet addictive behaviors.²⁰ Moreover, the prevalence rate of depression accounted for 83.5% among students who had symptoms of Internet addiction.²² Depressed individuals are more likely to have introverted personalities and are driven towards online platforms due to their anonymous nature. They perceive the absence of facial gestures and eye contact communication as less threatening and more comfortable in establishing relationships. The individuals presume that cyberspace is a medium to vent their negative feelings.²³

The existing literature explicitly pinpointed that the variation in the severity of the Internet addiction level is based on the intensity of depressive symptoms. Elevated depressive symptoms lead to higher levels of Internet addiction among university students.²⁴ Depressed individuals have negative

feelings, such as guilt and anhedonia, and are unsatisfied with their offline relationships; initially, they tend to use the Internet as a medium to express their emotions freely under anonymity and to temporarily get detached or diverted from their reality. However, their negative emotions may gradually drive them to use the Internet excessively until they reach satisfaction.²⁴ Some studies have established the link between depression and Internet addiction. For instance, a comparative study conducted between six Asian countries and a western setting among college students found that Internet-addicted students in some Asian countries/regions had more depressive symptoms than U.S. students and had higher risks of developing online social networking addiction.¹⁹ Another systematic review revealed that around 75% of studies reported a significant association between depression and Internet addiction.²⁰ A study conducted among college students found a strong positive correlation between stress, anxiety, depression, and Internet addiction. It also implied that Internet addiction is associated with increased levels of psychological distress; however, these effects could alleviate based on the individual's coping behaviors.²⁵ Depressed persons are more vulnerable to develop Internet addiction; also, significant variability in the gender was found.²⁶ On the other hand, another study revealed a moderate positive correlation between internet usage behavior and depression in the Thai individuals. It also revealed a significant relationship with other factors such as the student, family, and residential context.²⁷ However, examining the subscales of depression that cover the affective, physical, interpersonal relations, and positive affect domain is important as it could provide an in-depth understanding and its relationship with Internet addiction. This study was guided by the Internet addiction model, where depression is indicated as one of the psychopathological aspects contributing to internet addiction. It also indicates that depression leads to an increase in symptoms of Internet addiction. The information from this present study could help in developing interventions based on cultural context and understanding the underlying factors of internet addiction to evaluate the student population. Also, it could be beneficial for reducing behavioral addictions or other mental health disorders in the future. This study could be significant for professional nurses as it could guide them in identifying depressive symptoms and screening for at-risk individuals to plan interventions to deter Internet addiction. Furthermore, this could also serve as a guideline for devising

awareness programs to promote optimal mental health among students. Understanding the psychological symptoms could help mental health nurses screen for other associated psychiatric comorbidities. Therefore, this present study aimed to examine the level depression and Internet addiction, compare these factors' scores based on gender and family structure and determine the relationship between depression and Internet addiction among university students.

Methods

This descriptive study was conducted among four 470 undergraduate students from a university in the Chonburi province, Thailand. The students above 18 years old who had Internet connectivity, and agreed to participate were included in this study. Students undergoing treatment for any mental health illness were excluded. A multi-stage cluster random sampling technique was used to obtain the sample. Initially, from the selected university, three divisions, namely health science, humanities and social science, and science and technology, were considered as the three clusters. Subsequently, 50% of the faculties were randomly selected from each cluster. Based on this, two faculties from the science and technology division, and three faculties from the health science, and humanities and social science division, were randomly selected, leaving a total of eight faculties. The number of participants in each faculty from the respective years was proportionately determined. The students from all four years who met the eligibility criteria were randomly recruited from the selected eight faculties. It consisted of 169, 167, and 134 students in the health sciences, humanities and social sciences, and science and technology divisions, respectively. Students of all years were recruited from each faculty to reach the desired sample size. The number of total populations was 5,863. In this study, data were collected from 470 students; this number met the minimum sample size requirement based on the table postulated by Krejcie and Morgan²⁷ with a population proportion of 0.5, and a confidence interval of 0.05; a minimum sample size of 357 was needed.

Research instruments

Self-administered questionnaires comprising three parts were administered. Permission to use all instruments was obtained. All psychosocial questionnaires were tested for

internal consistency reliability in 30 individuals with characteristics comparable to the participants.

The **first section** collected sociodemographic characteristics including age, gender, study field, year of study, current cumulative GPA, number of siblings, parental education level and nature of work, parental marital status, family structure, living status.

The **second section** was the Thai version of the Internet addiction test developed by Neelapajit and colleagues.²⁹ This scale was created originally based on pathological gambling diagnosis criteria. This instrument has 20 questions measuring six components specifically salience, excessive use, neglect of work, anticipation, lack of control, and neglect of social life. The Internet addiction scale is rated on a 5-point Likert-type scale ranging from 0 (rarely) to 5 (always). The responses of all the 20 items are summed up to obtain a total score ranging from 0 to 100 points. The total score below 30 points indicates no Internet addiction, and the one above 80 points indicates severe Internet dependence. In this study, this instrument had a high internal consistency reliability (Cronbach's alpha coefficient of 0.93).

The **third section** was the Thai version of the Center for Epidemiologic Studies-Depression scale which was translated from the original version by Trangkasombat.³⁰ It was created based on Beck's cognitive model of depression.³¹ This 20-item self-report rating questionnaire assess four domains related to depression which included depressive affect, positive affect, somatic activity, and interpersonal relations. It is a 4-point Likert-type scale scoring system, ranging from 0 (rarely or none of the time) to 3 (most or all the time). The total score was 0 to 60 points with a cut-off score of 16 points or above suggesting depressive symptoms and the one greater than 30 points indicating severe depressive symptoms. In this study, this scale had a high internal consistency reliability (Cronbach's alpha coefficient of 0.89).

Human subject protection and data collection procedures

This study was approved by the ethical institutional review board of the University (approval number: G-HS075/2565). The study obtained formal administrative approval from the study setting for data collection. The participants were informed about their research objectives, benefits, risks, types of questionnaires, duration of the study, participation rights, withdrawal, and confidentiality. The voluntary nature of

participation was also explained. After informing the participants about the study process through a flyer, the eligible students accessed the online questionnaires by scanning a QR code. Prior to filling out the responses, the participants provided consent by clicking the "next option" in the Google form. Most participants took around one and a half weeks to return their response forms. The obtained data were strictly kept confidential.

Data analysis

The demographic characteristics of the participants were analyzed using descriptive statistics including frequency with percentage and mean with and standard deviation. Independent sample t-tests were employed to assess the differences in depression scores and Internet addiction regarding gender and family structure. Pearson's product moment correlation analysis was used to examine the relationship between depression and Internet addiction. Statistical significance was set a type I error of 5%. All statistical analyses were performed using the software program SPSS program version 20.

Results

Among the 470 participants, most were female with a mean age of 20.19 years. Most participants were in their first year (32.1%) and belonged to health sciences division (36.0%). About one-third of participants had a current GPA of 3.01 - 3.50 (31.3%). Concerning parental education, most participants' fathers and mothers completed secondary education (34.9% and 32.6%, respectively). Their parents worked in private enterprises and self-employed business. Three-quarters of participants belonged to nuclear families that comprised only close family members (74.7%) and resided outside the university campus (78.5%) (Table 1).

Women had mean depression score that was significantly higher than that in men (P-value = 0.010). Both genders had comparable Internet addiction scores. Regarding family structure, participants with nuclear family and extended family had comparable scores of depression and Internet addiction (Table 2).

The overall depression and each of all 4 aspects/subscales of depression namely depressive affect, somatic activity, positive affect, and interpersonal relations were at a moderate level. Among the 4 aspects, the highest

mean was found with depressed affect followed by somatic activity, interpersonal relations, and positive affect. The total mean score of internet addiction was 65.26 points indicating a moderate internet addiction (Table 3).

Table 1 Sociodemographic characteristics of the sample (N = 470).

Characteristics	N (%)
Gender	
Male	136 (28.9)
Female	334 (71.1)
Age (years)	
18 – 19	176 (37.5)
20 – 21	217 (46.1)
≥ 22	77 (16.4)
Study year	
1 st	151 (32.1)
2 nd	114 (24.2)
3 rd	105 (22.4)
4 th	100 (21.3)
GPA	
< 2.50	36 (7.7)
2.51–3.00	56 (11.9)
3.01–3.50	147 (31.3)
≥ 3.51	136 (28.9)
Not answered	95 (20.2)
Field of education	
Health sciences	169 (36.0)
Humanities and social science	167 (35.5)
Science and technology	134 (28.5)
Number of siblings	
1 sibling	261 (55.5)
≥ 2 siblings	104 (22.2)
No sibling	105 (22.3)
Father's education level	
Bachelor's degree and above	137 (29.1)
Diploma	64 (13.6)
Secondary school	164 (34.9)
Primary school	91 (19.4)
Uneducated	14 (3.0)
Mother's education level	
Bachelor's degree and above	151 (32.0)
Diploma	60 (12.8)
Secondary school	153 (32.6)
Primary school	98 (20.9)
Uneducated	8 (1.7)
Fathers' occupation	
Government	57 (12.1)
Private	181 (38.5)
Self-employed	158 (33.6)
Unemployed	7 (1.5)
Others	67 (14.3)
Mothers' occupation	
Government	38 (8.1)
Private	171 (36.4)
Self-employed	170 (36.2)
Unemployed	10 (2.1)
Others	81 (17.2)
Parents' marital status	
Married	289 (61.5)
Separated	42 (8.9)
Divorced	112 (23.8)
Widowed	27 (5.7)
Family structure	
Nuclear	351 (74.7)
Extended	119 (25.3)
Living status	
Lives with parents	55 (11.7)
Lives inside campus	46 (9.8)
Lives outside university	369 (78.5)

Table 2 Scores of internet addiction and depression by gender and family structure (N = 470).

	Mean ± SD	
	Internet addiction	Depression
Gender		
Men (n = 136)	64.92 ± 5.26	21.05 ± 8.53
Women (n = 334)	65.36 ± 4.56	23.12 ± 7.41
P-value*	0.374	0.010
Family structure		
Nuclear family (n = 351)	64.94 ± 5.31	21.38 ± 7.82
Extended family (n = 119)	62.30 ± 4.63	22.06 ± 7.34
P-value*	0.136	0.413

* Independent t test.

Table 3 Levels of the study variables (N = 470).

Variables	Mean	SD	Level
Depression (Total)	23.60	7.84	Moderate
Depressive affect	8.13	1.69	Moderate
Positive affect	6.74	1.35	Moderate
Somatic activity	7.11	1.26	Moderate
Interpersonal relations	7.02	1.15	Moderate
Internet addiction	65.26	5.60	Moderate

Overall depression had a significantly positive relationship with internet addiction ($r = 0.296$, $P\text{-value} < 0.01$). Most aspects of depression namely depressive affect, somatic activity, and interpersonal relations, except positive affect had significantly positive correlations with Internet addiction ($P\text{-value} < 0.01$) (Table 4).

Table 4 Relationship between depression and internet addiction (N = 470).

Depression	Correlation coefficient (r)
Depression (Total)	0.296*
Depressive affect	0.266*
Positive affect	0.174
Somatic activity	0.258*
Interpersonal relations	0.220*

* Significant at a $P\text{-value} < 0.01$.

Discussions and Conclusion

This present study established a significant relationship between depression and internet addiction. Among the subscales, the depressed affect was the highest, followed by somatic activity, interpersonal relations, and positive affect. This could be explained in the prism of the demographic profile, where most participants in this study aged below 21 years and belonged to the first year of undergraduate studies. Feelings of homesickness coupled with unfamiliarity with the new environment and people and drastic changes in academic modules could make them worried during this educative and

developmental transition phase. Furthermore, this could be related to a few studies that found students perceive entering university as threatening and affecting their mental health.^{16,24} It was evident in a study revealing that students of this age group were susceptible to depression.³² Regarding gender, this study found a significant difference in depression scores. Women had more depression than men. Some studies have stated its underlying reasons in various premises. For instance, a study linked women's environmental changes and stress levels during their pubertal transition and stated that women carry forward their distressful experiences more than their counterparts.³³ Similarly, another study indicated that the emergence of depression among women was due to physical and psychosocial changes during adolescence.³⁴ As an add-on, another study posited the genetic reasons.²⁶ This finding was confirmed by another study.³⁵ However, with regard to internet addiction, non-significant gender differences were found in Internet addiction and were in concord with another study.²⁶ Furthermore, considering the inevitable role of family type and family functionality in establishing good interpersonal relationships an important attribute of depression, this study compared the differences between family structure and internet addiction and depression scores. However, no significant difference was observed between nuclear and extended families with internet addiction and depression. Nevertheless, this finding was contrary to a study finding.³⁶

The current study found that depression was positively correlated with internet addiction. This could be because depressed individuals have increased feelings of worthlessness and hopelessness, pessimistic thoughts, and low self-concept, and become socially withdrawn. To escape from reality, they get preoccupied and indulge in internet uncontrollably.²⁴ This finding was consistent with other studies.^{19,37} Similarly, another study found that depression and self-esteem had a significant relationship with internet addiction among university students.³⁸ In addition, some prior studies showed positive correlation between depression and internet addiction.^{25,39} Concomitantly, a study found that individuals with existing mental health problems such as depression is more likely to develop internet addiction.⁴⁰ Besides, another study stated that the presence of psychopathological symptoms in childhood could develop future internet addiction.²⁰ A recent longitudinal study conducted in a university sample found that depression was significantly linked with Internet addiction and vice-versa.⁴¹

Since depression could also coexist with other psychological problems, this study sheds light on the importance of screening for depressive symptoms to prevent the behavioral addictions.

Depressive affect had high scores compared to other subscales. Prior studies have indicated that depressed individuals have pessimistic thoughts and declined judgmental skills or rational thinking.³⁴ So, this could affect their thought process in choosing between adaptive and maladaptive Internet usage. The concept of depressed affect refers to the physical and emotional state of a person who feels isolated.³⁴ Some scholars pointed out that people with mental health disorders are susceptible to developing gaming addiction.⁴² Kuss and colleagues reported depression as a prime factor and individuals are prone to become Internet dependence.⁴³ In addition, a study conducted among college samples across 25 U.S. states found that higher levels of depressive symptoms lead to increased levels of cyber victimization and traditional victimization.⁴⁴

Somatic symptoms are bodily sensations that the individual feels unpleasant; it generally refers to fatigue, loss of appetite, and sleep disturbances.⁴⁵ This study finding on somatic activity seems quite plausible. Depressed mood is linked with low motor activity, and individuals tend to become passive, stay isolated at home from significant others, and indulge in excessive Internet use.⁴⁶ Besides, somatic symptoms were found to increase the symptoms of depression.⁴⁵ However, a study finding could not be left unnoticed, which pinpointed that a person's excessive involvement in cyberspace was not to compensate for his/her emotional problems, rather depression co-existed and led to maladaptive behaviors such as problematic Internet use.⁴⁷

The findings addressed that interpersonal relationship was correlated with Internet addiction. It could be possibly viewed from two perspectives. People with poor interpersonal relationships tend to get attracted to the Internet as they find it easier to find new people and do anonymous chatting. Another perspective is that when individuals encounter difficulty in establishing rapport or communicating with others in the real world or get rejected by others, they seek the Internet to cope with the negative emotions.⁴⁸ Also, individuals tend to be internet-addictive when they have conflict with their families.⁴⁹ The difficulties in maintaining the interpersonal relationships could lead to increased Internet dependency.¹⁸ This extensive immersion in the virtual world gradually makes

the individuals depart from being a participant in real society. A study highlighted the fluctuations in stress levels in their daily lives could lead to depression among students.⁵⁰ However, this finding was congruent with another study.²²

This study, by finding the relationship between all domains in the depression scale, aligns with the concept of depression that comprises the constellation of three aspects- social, physical, and psychological.⁵¹ It is important to address the depression-driven Internet addiction as it could drastically disrupt academic, work, and domestic responsibilities.³⁸ Thus, by presenting arguments of depression in developing Internet addiction, we affirm the importance of periodically evaluating and ruling out psychopathological symptoms among university students.

Since this study was conducted during the post-pandemic period, it showcases the technological impact on university students. However, this study has some limitations. Since this study was conducted in a single setting, it could limit the universality of findings to the students from other universities. Furthermore, considering the study nature, the interaction and trends between depression and Internet addiction could not be established fully; hence, further longitudinal studies should be conducted to study the patterns of these factors over a longer period to get an extensive understanding of this phenomenon. Lastly, even though internet addiction is increasingly found among youths, the sample constituting other age groups can be considered in future studies.

To conclude, these findings strongly affirm the relationship between depression and internet addiction. It implies that negative emotions, physical ailments, and interpersonal relationships could significantly influence one's pattern of technology use. Individuals with depressive symptoms try to flee from their harsh reality, so they enter the corridors of the digital world to obtain serenity and gratification. This study findings have significant implications on nursing practice. Firstly, it could provide insights to nursing professionals about the earlier symptoms of internet addiction and prevent it among the student population. Secondly, timely initiatives could be taken by educating family members about the behavioral changes and risk factors associated with internet addiction. Lastly, identifying depressive symptoms and behavioral addiction could aid psychiatric nurses in protecting the youths' emotional and psychological health, enhancing appropriate communication skills, and planning interpersonal relationship programs. Moreover, healthcare personnels,

teachers, and families should take initiatives and implement a holistic approach to prevent the younger generation from being driven by addictive tendencies. It includes providing sufficient time for outdoor or sports activities, optimizing study workload, and organizing regular student group activities to promote socio-emotional health. Community-based interventions need to go hand in hand to prevent depressive symptoms. Regular supportive services could be provided to the students as they face various challenges, that differ based on the academic year. Furthermore, it could aid them in achieving sustainability in new circumstances. Parents, faculty staff, and nurses should act as agents in encouraging health-promoting behaviors through a comprehensive approach. Also, a counseling center could be set up in a university setting. The students must be clarified about the long-term effects and other comorbidities of internet dependence. Furthermore, adopting a public health approach in expanding preventive strategies and early check-up campaigns could save youth from internet addiction and break the chain of other related substance addictions. This study may inform the governing bodies and policymakers while they formulate policies related to distance education programs. Currently, internet addiction has grabbed the attention of mental health professionals in both academic and clinical realms, so further studies examining the link between depression and other forms of internet-addictive behaviors, such as gambling, could be beneficial. Also, gender-specific interventions could be put forward to alleviate depression. Finally, educating the younger generation to draw boundaries between normal and maladaptive internet usage could reach an impasse on this phenomenon.

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