International Education Studies; Vol. 17, No. 1; 2024
ISSN 1913-9020 E-ISSN 1913-9039
Published by Canadian Center of Science and Education

Mediating Role of Smartphone Addiction on the Relationship Between Self-Efficacy and Psychological Escapism Among College Students: Structure Model Test

Randah Barakat[1]

[1] School of science of Education, World Islamic Sciences and Education University, Amman, Jordan

Correspondence: Randah Barakat, School of science of Education, World Islamic Sciences and Education University, Amman, Jordan.

Received: September 3, 2023 Accepted: November 11, 2023 Online Published: January 25, 2024

doi:10.5539/ies.v17n1p48 URL: https://doi.org/10.5539/ies.v17n1p48

Abstract

The present work explores the potential role of smartphone addiction in mediating the correlation between self-efficacy and Psychological Escapism among university students. The paper's stratified convenience sample comprised 195 students from the World Islamic Sciences and Education University. Validated scales measuring self-efficacy, psychological escapism, and smartphone addiction were utilized for data collection. The findings indicate that smartphone addiction, self-efficacy, and psychological escapism were all found at moderate levels. Moreover, the presence of smartphone addiction as a mediating variable resulted in a significant increase in the proportion of explained variance in the level of psychological escapism attributed to self-efficacy (31%), compared to the absence of this mediating variable (22%). Additionally, while gender and academic year have significant effects on psychological escapism, the demographic elements investigated did not demonstrate any significance with self-efficacy or smartphone addiction among college students. Accordingly, this research points out the importance of developing curative and preventive counseling programs aimed at reducing smartphone addiction and mitigating the level of psychological escapism by enhancing self-efficacy among college students.

Keywords: self-efficacy, psychological escapism, smartphone addiction, college students, structure model test

1. Introduction

1.1 Overview

Smartphones have become a vital element of daily life in this digital age; there are 7.26 billion smartphone users worldwide in 2022 and the number is predicted to increase in the coming years (Taylor, 2023). College students in Jordan, as in other countries, utilize smartphones extensively (Lin, Teo, & Yan, 2022). Studies indicate that 33.6% spend three to five hours daily on their smartphones (Slaih et al., 2019). Excessive smartphone use, periodically known as smartphone addiction (SA), as stated by Lin et al., is primarily demonstrated in the following manners: obsessive phone usage, tolerance, withdrawal, functional impairment, and impact on other life activities and personally social relationships (Lin et al., 2016). Smartphones have been associated with subjective discomfort and psychopathological symptoms (Beranuy, Oberst, Carbonell, & Chamarro, 2009), lower academic performance (Seo et al., 2016), musculoskeletal diseases (Eitivipart, Viriyarojanakul, & Redhead, 2018), levels of loneliness, inadequate social capital bridging and poor bonding (Bian & Leung, 2015), and sleep disturbance (Randler et al., 2016).

Self-efficacy (SE), a social cognitive theory-derived concept, is an understanding that one can carry out responsibilities and achieve results (Khalil, Ghayas, Adil, & Niazi, 2021). It is essential for determining the way people conduct, is motivated, social environment, and can cope (Bandura, 1977). According to Komarraju and Nadler (2013), self-efficacy is a psychological tendency, guiding one's perceptions, feelings, and decisions towards their psychological well-being (Komarraju & Nadler, 2013). As a result, self-efficacy is crucial to control stress since it affects how stressors are assessed and how the ways to handle them are chosen (Villada et al., 2017). Therefore, self-efficacy is a crucial resource for university students (Denovan & Macaskill, 2017) when they suffer from certain stressors related to educational, financial, and social demands (Emerson et al., 2022). Excessive internet use has a strong negative impact on perceived self-efficacy (Berte, Mahamid, & Affouneh, 2021). Self-efficacy and quality of life levels among students are statistically significantly positively

correlated (Al-Mwadih et al., 2019). According to Siddiqui's (2018) findings, students over 22 had considerably greater self-efficacy scores than students under 22. Stress and self-efficacy showed a significant direct connection (Siddiqui, 2018).

Psychological escapism (PE) refers to a tendency for individuals to engage in various means of departure to seek mental or emotional comfort from the responsibilities, expectations, or difficulties of life. Manifestations of this condition include excessive technology use, daydreaming, fantasy engagement, participating in addictive activities, and seeking out distractions from reality (Igorevna, 2015). Evans suggests a variety of categories for escapism. Avoiding or escaping from reality and challenges in actual life is the primary goal of this kind of escapism. Passive escapism refers to pursuits in which one does not have to exert any effort, such as listening to music, watching TV or movies, etc. Active escapism entails switching from a primary activity (such as a job) to an alternative activity (such as a hobby). Computer games are a few of the best examples. Extreme activities include those truly risky like drinking and addiction to drugs, jumping off roofs, etc. (Evans, A., 2001). The spread of COVID-19 has affected internet usage and psychosocial health significantly. Furthermore, individuals whose gaming addiction, and compulsive use of the internet and social media was high, had high levels of despair, loneliness, escapism, poor sleep quality, low self-esteem and anxiety associated with the epidemic (Fernandes et al., 2020), (Fernandes et al., 2021). Moreover, COVID-19 worry and anxiety have significantly increased the use of media-based escapism (Klosi, 2021). Additionally, research shows that escapism and loneliness are closely connected to problematic internet surfing and predict the development of online addiction, which in turn causes low self-esteem (Mamunet al., 2020; Tian, Qin, Cao, & Gao, 2021). For instance, problematic social media use (such as greater Instagram use) was found to be substantially linked to escapism in a Turkish sample (Krcaburun & Griffiths, 2019). Escapism was found to be associated with increased involvement with the social media platform, particularly as a way to deal with loneliness. According to Tian et al. (2020), the use of social media sites like Instagram compensates for face-to-face interaction and low self-esteem is frequently the cause of this. According to Kardefelt-Winther (2014), online gamers who experienced poor life consequences (such as losing their jobs and relationships as a result of gaming) also turned to escapism to deal with their low self-esteem and high levels of stress.

Regarding the association of sociodemographic factors with SD and SE, there were no significant variations in internet addiction and perceived self-efficacy based on the study area, gender, or academic level (Berte, Mahamid, & Affouneh, 2021). The level of self-efficacy depending on gender favors male students (Siddiqui, 2018).

Understanding the causes of developing Psychological Escapism among college students is key to efficiently handle the problem. Even though the issue has been investigated by several studies, such studies are scarce in Jordan. Further, none of the available studies studied self-efficacy and the potential mediating role of smartphone addiction among students in Jordan. Besides self-efficacy and smartphone addiction, several demographic elements like gender, academic year, college, and the most used application were also investigated as part of this study.

1.2 Significance of the Study

This paper points out the significance of developing curative and preventive counseling programs aimed at reducing smartphone addiction and mitigating the level of psychological escapism by enhancing self-efficacy among college students.

1.3 Literature Review

The study subject has been discussed in several previous studies. (Beranuy, Oberst, Carbonell, & Chamarro, A., 2009) examined maladaptive use of the internet and its relationship to psychological distress. The study was applied to 365 undergraduate students at Ramon Llull University in Spain. The study found a connection between psychological distress and maladaptive use of the internet and mobile phones.

Berte, Mahamid, and Affouneh (2021) studied the link between mobile and internet addiction types and self-efficacy among college-aged students in Palestine. The research was applied to 505 university students. The findings showed that excessive use of the internet harms self-efficacy. However, there was no significant difference in excessive internet use and area of study, gender, age, or academic level.

Bian and Leung (2015) reviewed the impact of psychological features (shyness and loneliness) on the patterns of smartphone use in expecting symptoms of mobile addiction and social capital. The researchers applied the study on 414 university students in China. The study found five signs of mobile addiction: disregard of harmful consequences, preoccupation, inability to control craving, productivity loss, and feelings of anxiety and loss. The

results also found a proportional relationship between loneliness and shyness and smartphone addiction.

Emerson, Hair, and Smith (2022) investigated resilience as a potential moderating factor between both psychological distress and academic burnout, and student attrition. The sample included 1119 business students in the US. The study found a positive correlation between psychological distress and academic burnout. The research also showed a positive relationship between elements of academic burnout and departure intentions. Nevertheless, even though resilience did not moderate these relations, it attenuated them through its direct negative associations with both psychological distress and the cynicism and academic inefficacy elements of academic burnout.

Fernandes et al. (2020) examined the influence of the Covid-19 lockdown on internet use among adolescents. The study reported that respondents who were addicted to gaming reported symptoms of loneliness and depression.

Kardefelt-Winther (2014) reviewed the moderating role of psychosocial well-being on the relationship between escapism and excessive online gaming. The study proved that self-esteem mitigated the correlation between escapism and negative outcomes. The research also reported a positive association between escapism and negative outcomes in the presence of psychological issues.

In the same context, Klosi (2021) examined COVID-19's effect on social media escapist activities. The study reported that the pandemic lockdown restrictions on social interaction and face-to-face meetings brought about escapist activities.

1.4 Study Questions

1) What are the levels of smartphone addiction, self-efficacy, and psychological escapism for students at WISE University?
2) Is there a difference in the percentage of the explained variance accounted for by self-efficacy through the level of psychological escapism based on smartphone addiction as a mediating variable for students at WISE University?
3) Are there statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to most used application, academic year, college and gender?
4) Are there statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to the most used application?

1.5 Study Hypothesis

H_0: The levels of smartphone addiction, self-efficacy, and psychological escapism are moderate.

H_1: There is a difference in the percentage of the explained variance accounted for by self-efficacy through the level of psychological escapism based on smartphone addiction as a mediating variable for university students.

H_2: There are statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to most used application, academic year, college and gender.

H_3: There are statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to the most used application

2. Methods

2.1 Design

This is a cross-sectional correlational design using a paper-based survey to determine levels of AS, SE, and SE among college students. We followed the global guidelines for the STROBE checklist in our study.

2.2 Population, Inclusion, and Exclusion Criteria

I chose the World Islamic Sciences and Education University in Amman. Inclusion criteria were university students in Amman, bachelor's degrees, and all types of schools. Exclusion criteria were out of Amman city, first semester without grade, diploma degree (2 years), postgraduate degree, and less than 18 years old.

2.2.1 Participants

195 BA students were randomly selected at the WISE University in the first semester of 2020/2021. Table 1 illustrates the distribution according to their academic level, faculty, and gender.

Table 1. Distribution of participants based on academic level, college, and gender

Variable		No. of students	%
Academic level (year)	1	21	10.8
	2	23	11.8
	3	40	20.5
	4	73	37.4
	5+	38	19.5
Faculty	Humanities	94	48.2
	Scientific	101	51.8
Gender	Male	32	16.4
	Female	163	83.6
Total		195	100.0

2.2.2 Demographic Information

To find out the participants' demographic data, we asked participants to answer general information about their sociodemographic factors, including gender, type of school, and academic year as presented in (Table 1).

2.3 Study Tools

Smartphone addiction scale (SAS) was developed to assess smartphone addiction among college students in Jordan. It included 25 items with six dimensions: (overuse, daily life mess, withdrawal, endurance, positive expectation, and cyberspace-oriented relations and was developed following previous papers (Lin, Teo, & Yan, 2022; Beranuy, Oberst, Carbonell, & Chamarro, 2009). The scale was altered as per a survey of 10 Jordanian specialists in educational psychology and measurement. To assess content validity and reliability, the scale was presented to 30 students outside the research sample. Correlation coefficients between items were calculated and were in the range of 0.430-0.688 and Cronbach's Alpha was 0.913.

Self-efficacy scale (SES) was utilized to assess the perception of self-efficacy among college students in Jordan. It included 14 items and was structured according to (Khalil, Ghayas, Adil, & Niazi, 2021) and adapted after a survey of 10 Jordanian specialists in educational psychology and measurement. The scale was tried on 30 students outside the research sample to assess content validity and reliability. Correlation coefficients between items were calculated and were in the range of 0.71–0.365 and Cronbach's Alpha was 0.799.

Psychological escapism scale (PES) was used to assess psychological escapism among college students in Jordan. It included 14 items and was structured according to previous literature (Lin, Teo, & Yan, 2022; Beranuy, Oberst, Carbonell, & Chamarro, 2009). It was altered after a survey of 10 Jordanian specialists in educational psychology and measurement. The scale was tried on 30 students outside the research sample to assess content validity and reliability. Correlation coefficients between items were calculated and were in the range of 0.314-0.738 and Cronbach's Alpha was 0.789. Items of all scales developed in this study were rated on a 5-point Likert-type scale as follows: 1 'Strongly disagree', 2 'Disagree', 3 'Agree', 4 'Strongly Agree' for positive items, while the answer scale was reversed for negative items. The average score of all items in each scale was calculated and used to assign the level of SA or SE as low (for average scores of 1.00-2.33), moderate (for average scores of 2.34-3.66), and high (for average scores of 3.67-5.00).

3. Data Analysis

After collecting the survey, we analyzed the data using SPSS v23. Descriptive statistics are for the main variables, and for the correlation between variables, we used the Pearson correlation coefficient (r). For differences, we performed t-tests for two categories and one-way analysis of variance (ANOVA) for more than two categories with burnout levels. For prediction, we used linear regression analysis via a stepwise approach. The P-value is significant at 0.05.

3.1 Results and Discussion

The direct aim of the present work is to find out the mediating role of smartphone addiction in the relationship between self-efficacy and psychological escapism among college students. To answer the study questions, means, standard deviations, and overall levels were worked out as in Table.

Question One: What are the levels of smartphone addiction, self-efficacy, and psychological escapism for university students?

Table 6 displays that the average scores of smartphone addiction, self-efficacy and psychological escapism are

(2.71, 2.91, 2.35), which indicates that students have a moderate level of SA, SE, and PE. This could be attributed to the fact that youth find that this modern device meets their needs with its diverse apps while they are the most capable of dealing with smart services and apps as advanced technology. However, they are not supposed to overuse them as these youth are required to achieve many life activities beyond such apps and meet their families' hopes to spend time together. As for the self-efficacy level of these youth, it is connected to their feeling of competency as university students who have several successes at the academic and social levels, which would highly reduce their tendency for psychological escape. This result supports many previous studies that found moderate levels of SA, SE, and PE.

Question Two: Is there a difference in the percentage of the explained variance accounted for by self-efficacy through the level of psychological escapism based on smartphone addiction as a mediating variable for university students?

3.1.1 Natural Distribution Test

The natural distribution test was conducted on the participants' responses to verify that the data were naturally distributed, employing the Skewness coefficient and the Kurtosis tests. They were, respectively, 0.339 and 0.200- for smartphone app addiction, 0.129- and 0393- for self-efficacy, and 0.174 and 0.675- for psychological escape, which indicated a natural distribution (Hair, Black, Babin, Anderson & Tatham, 2018; Ghozali, 2018).

3.1.2 No Overlap of Variables

To verify that there is no overlap of variables, the Variance Inflation Factor (VIF) test was employed, with a value less than 10. For the smartphone app addiction, the value was 1.283, self-efficacy 1.277 and psychological escape 1.085, thus indicating no overlap of variables.

3.1.3 Indicators of the Model Goodness of Fit Quality

The constructive model quality was verified through the following. The first was the Chi-Square Test, in which the value was not statistically significant. The second was the RMSEA test, in which the value was 1.238. The third was the IFI test, in which the value was 0.857. Thus, the constructive model met all the required indicator standards and was statistically fit (Jitesh, 2021).

3.1.4 Results for the Path Analysis

The Pearson correlation coefficient was employed to extract the relation between the variables: self-efficacy, psychological escapism, and smartphone addiction, as is shown by the results in Table 2.

Table 2. The Pearson correlation coefficient for the relation between self-efficacy, psychological escapism, and smartphone addiction

Variance		Self-efficacy	Psychological escape
Smartphone app addiction	Correlation coefficient	*0.279-	*0.466
	Explained variance	0.078	0.217
Self-efficacy	Correlation coefficient	-	*0.469-
	Explained variance	-	0.220

*Statistically significant at level (0.05).

Table 2 shows an inverse relation between self-efficacy and psychological escape, which explains 22%, and a positive relation between smartphone app addiction and psychological escape, which explains 21.7%. The path analysis test was conducted on the variables to extract the impacts. Figure 1 demonstrates the model, explanation rate and results.

Figure 1 demonstrates that the model constituted 31% of the explained variance of psychological escape. On the other hand, Table 3 shows the values of the impacts between the variables of the study.

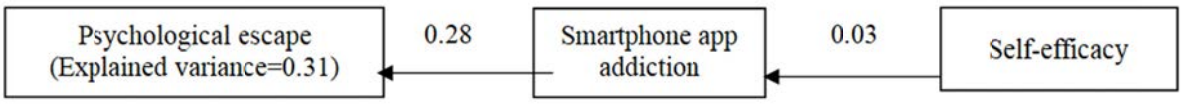

Figure 1. Results for the path analysis test

Table 3. Values of the impacts between the variables of the study

Variable		Direct impact	Indirect impact	Total impact
Self-efficacy	Smartphone app addiction	-0.181*	-	-0.181*
	Psychological escape	-0.077*	-0.102*	-0.179*
Smartphone app addiction	Psychological escape	0.565*	-	0.565*

*Function at the significance level ($\alpha \leq 0.05$).

It is clear from Table 3 that self-efficacy has a direct impact on WISE students in terms of psychological escape by 7.7%, indirect impact by 10.2% and total by 17.9%. On the other hand, self-efficacy only directly impacts smartphone app addiction by 18.1%, while smartphone app addiction also had only a direct impact on psychological escape by 56.6%.

The cause behind such results may be that students who lack sufficient psychological support from their social environments are expected to feel lonely, isolated, depressed or weak, pushing them to resort to smartphone apps, which they can use very well (Kumcağiz & Gündüz, 2016).

The results partly agree with Schwatrz (2010), who referred to a positive correlation between the feeling of isolation and the rise of the use of Facebook. Likewise, Yu Sen et al (2012) argued that the overuse of Facebook led to the possibility of the youth's massive withdrawal symptoms. It is also consistent with Spraggins (2009), who contended that social media addiction affected the youth's mental health, possibly causing disorders like loneliness, anxiety, and depression.

Question Three: Are there statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to academic year, college, and gender?

Table 4. Means and Stdvs of smartphone applications addiction, self-effectiveness, and psychological escape according to school year, college, and gender

Variable			smartphone applications addiction	Self-effectiveness	Psychological escape
Academic year	first	M	2.82	2.87	2.54
		SD.	0.529	0.481	0.478
	Second	M	2.75	2.81	2.33
		SD	0.694	0.553	0.375
	Third	M	2.73	3.06	2.25
		SD	0.680	0.417	0.551
	Fourth	M	2.75	2.85	2.45
		SD	0.853	0.456	0.407
	Fifth and above	M	2.56	2.95	2.19
		SD	0.777	0.416	0.437
College	Humane	M	2.83	2.92	2.33
		SD	0.763	0.483	0.415
	Scientific	M	2.61	2.90	2.37
		SD	0.733	0.439	0.502
Gender	Male	M	2.49	2.97	2.17
		SD	0.589	0.418	0.457
	Female	M	2.76	2.90	2.39
		SD	0.776	0.467	0.455

Table 4 displays clear differences in smartphone application addiction, self-effectiveness, and psychological escape among WISE students due to the academic year, college and gender. To verify the statistical significance of these differences, MANOVA was used. Table 5 shows the results.

Table 5. MANOVA test of differences in smartphone applications addiction, self-effectiveness and psychological escape by academic year, college, and gender

Source	Variables	Sum of Squares	DF	Mean Square	F	Sig.	ETA
Academic year	smartphones addiction	1.408	4	.352	.632	.641	.013
	Self-effectiveness	1.447	4	.362	1.728	.145	.035
	Psychological escapism	3.212	4	.803	4.107	.003	.080
College	smartphones addiction	1.706	1	1.706	3.061	.082	.016
	Self-effectiveness	.057	1	.057	.270	.604	.001
	Psychological escapism	.437	1	.437	2.235	.137	.012
Gender	smartphones addiction	2.143	1	2.143	3.844	.051	.020
	Self-effectiveness	.079	1	.079	.379	.539	.002
	Psychological escapism	1.404	1	1.404	7.182	.008	.037
Error	smartphones addiction	104.814	188	.558			
	Self-effectiveness	39.355	188	.209			
	Psychological escape	36.759	188	.196			
Total	smartphones addiction	110.222	194				
	Self-effectiveness	40.970	194				
	Psychological escapism	41.347	194				

As shown in Table 5, no statistically significant differences exist at the level of significance ($\alpha \leq 0.05$) in the level of smartphone applications addiction, self-effectiveness, and psychological escape due to college, where the F values were statistically significantly higher than (0.05).

Statistically significant differences were not noticed at the level of smartphone application addiction and self-effectiveness due to academic year and gender, where the F values were statistically significantly higher than (0.05). While there are statistically significant differences in the level of psychological escape due to gender in favor of females where the F value was 7.182 and due to academic year, where the F value was 4.107, which are statistically significant values less than (0.05), and Scheffe's test shows that first-year students suffer more psychological escape than fifth year and older students.

Question four: Are there statistically significant differences in the level of smartphone addiction, self-efficacy, and psychological escapism due to the most used application?

Table 6. Means and standard deviations of smartphone application addiction, self-effectiveness, and psychological escape according to the time of using smartphones and the most used application

Variable			smartphone applications addiction	Self-effectiveness	Psychological escape
Time of using smartphones	Less than 4 hours	M	2.31	2.91	2.27
		SD	0.70	0.44	0.40
	5-7	M	2.71	2.92	2.36
		SD.	0.63	0.43	0.42
	More than 7 hours	M	3.01	2.90	2.40
		SD.	0.76	0.50	0.52
Most used application	Facebook	M	2.81	2.94	2.28
		SD	0.71	0.44	0.42
	Instagram	M	2.66	2.93	2.40
		SD	0.72	0.49	0.45
	Snape	M	2.77	2.86	2.29
		SD	0.88	0.43	0.49
	YouTube	M	2.73	2.88	2.36
		SD	0.76	0.42	0.50

Table 6 shows that there are apparent differences in smartphone application addiction, self-effectiveness, and psychological escape among WISE students due to the time of using smartphones and the most used application. To verify the statistical significance of these differences, MANOVA was used. Table 7 shows the results.

Table 7. MANOVA test of differences in smartphone applications addiction, self-effectiveness, and psychological escape by the time of using smartphone and the most used application

Source	Variables	Sum of Squares	DF	Mean Square	F	Sig.	ETA
time of using smartphones	smartphone applications addiction	15.704	2	7.852	15.812	.000	.143
	Self-effectiveness	.005	2	.002	.012	.989	.000
	Psychological escape	.564	2	.282	1.323	.269	.014
Most used application	smartphone applications addiction	.510	3	.170	.343	.795	.005
	Self-effectiveness	.182	3	.061	.282	.839	.004
	Psychological escape	.544	3	.181	.851	.467	.013
Error	smartphone applications addiction	93.859	189	.497			
	Self-effectiveness	40.784	189	.216			
	Psychological escape	40.265	189	.213			
Total	smartphone applications addiction	110.222	194				
	Self-effectiveness	40.970	194				
	Psychological escape	41.347	194				

As clear from Table 7, no statistically significant differences were found at the level of significance ($\alpha \leq 0.05$) in the levels of smartphone application addiction, self-effectiveness, and psychological escape due to the Most used application, where the F values were statistically significantly higher than (0.05).

There are no statistically significant differences in the levels of self-effectiveness and psychological escape due to the variable time of using a smartphone, where the F values were statistically significantly higher than (0.05). While there are statistically significant differences in the level of smartphone application addiction due to time of using smartphones, where the F value was 15.812, which is a statistically significant value less than (0.05), and Scheffe's test shows that the higher hours of using applications has increased smartphone applications addiction.

4. Conclusions

Smartphone addiction, self-efficacy and psychological escapism are all found to be at moderate levels among students. The results of this study show that self-efficacy has a direct impact on psychological escape. On the other hand, self-efficacy only has a direct impact on smartphone app addiction, while smartphone app addiction also has only direct impact on psychological escape. While gender and academic year displayed significance with the level of psychological escapism, none of the demographic factors investigated demonstrated a significant with self-efficacy or smartphone addiction among college students. The researcher recommends the importance of developing curative and preventive counseling programs aimed at reducing smartphone addiction and mitigating the level of psychological escapism by enhancing self-efficacy among college students.

References

Al-Mwadih, R., Adheisat, M., Alomyan, H., & Al-Badri, A. (2019). The relationship between self-efficacy and quality of life among university students. *An-Najah University Journal for Research-B (Humanities), 35*(9), 1531-1552. https://doi.org/10.35552/0247-035-009-006

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychol. Rev., 84*, 191-215. https://doi.org/10.1037/0033-295X.84.2.191

Beranuy, M., Oberst, U., Carbonell, X., & Chamarro, A. (2009). Problematic Internet and mobile phone use and clinical symptoms in college students: The role of emotional intelligence. *Computers in human behavior, 25*(5), 1182-1187. https://doi.org/10.1016/j.chb.2009.03.001

Berte, D. Z., Mahamid, F. A., & Affouneh, S. (2021). Internet addiction and perceived self-efficacy among university students. *International Journal of Mental Health and Addiction, 19*, 162-176. https://doi.org/10.1007/s11469-019-00187-x

Bian, M., Leung, L. (2015). Linking loneliness, shyness, smartphone addiction symptoms, and patterns of smartphone use to social capital. *Social Science Computer Review, 33*(1), 61-79. https://doi.org/10.1177/0894439314528779

Denovan, A., and Macaskill, A. (2017). Stress and subjective well-being among first year UK undergraduate students. *J. Happiness Stud., 2*, 505-525. https://doi.org/10.1007/s10902-016-9736-y

Eitivipart, A. C., Viriyarojanakul, S., & Redhead, L. (2018). Musculoskeletal disorder and pain associated with

smartphone use: A systematic review of biomechanical evidence. *Hong Kong Physiotherapy Journal, 38*(02), 77-90. https://doi.org/10.1142/S1013702518300010

Emerson, D. J., Hair, J. F., & Smith, K. J. (2022). Psychological Distress, Burnout, and Business Student Turnover: The Role of Resilience as a Coping Mechanism. *Research in Higher Education*. https://doi.org/10.1007/s11162-022-09704-9

Evans, A. (2001). This virtual life: Escapism and simulation in our media world. Fusion Press.

Fernandes, B., Biswas, U. N., Mansukhani, R. T., Casarín, A. V., & Essau, C. A. (2020). The impact of COVID-19 lockdown on internet use and escapism in adolescents. *Revista de psicología clínica con niños y adolescentes, 7*(3), 59-65. https://doi.org/10.21134/rpcna.2020.mon.2056

Fernandes, B., Uzun, B., Aydin, C., Tan-Mansukhani, R., Vallejo, A., Saldana-Gutierrez, A., & Essau, C. A. (2021). Internet use during COVID-19 lockdown among young people in low-and middle-income countries: Role of psychological wellbeing. *Addictive behaviors reports, 14*, 100379. https://doi.org/10.1016/j.abrep.2021.100379

Igorevna, O. O. (2015). Escapism: current studies and research prospects in contemporary psychology. *Austrian Journal of Humanities and Social Sciences, 1*(3-4), 103-105.

Kardefelt-Winther, D. (2014). The moderating role of psychosocial well-being on the relationship between escapism and excessive online gaming. *Computers in Human Behavior, 38*, 68-74. https://doi.org/10.1016/j.chb.2014.05.020

Khalil, M., Ghayas, S., Adil, A., & Niazi, S. (2021). Self-efficacy and Mental health among university students: Mediating role of assertiveness. *Rawal Medical Journal, 46*(2), 416-419.

Kırcaburun, K., & Griffiths, M. D. (2019). Problematic Instagram use: The role of perceived feeling of presence and escapism. *International Journal of Mental Health and Addiction, 17*, 909-921. https://doi.org/10.1007/s11469-018-9895-7

Klosi, I. (2021). Social Media Escapism: Exploratory Study of the Use of Digital Media by Tirana University Students of English Language. *Балканистичен Форум, 30*(2), 196-211. https://doi.org/10.37708/bf.swu.v30i2.12

Komarraju, M., & Nadler, D. (2013). Self-efficacy and academic achievement: Why do implicit beliefs, goals, and effort regulation matter? *Learning and individual differences, 25*, 67-72. https://doi.org/10.1016/j.lindif.2013.01.005

Lin, B., Teo, E. W., & Yan, T. (2022). The Impact of Smartphone Addiction on Chinese University Students' Physical Activity: Exploring the Role of Motivation and Self-Efficacy. *Psychology Research and Behavior Management, 15*, 2273-2290. https://doi.org/10.2147/PRBM.S375395

Lin, Y. H., Chiang, C. L., Lin, P. H., Chang, L. R., Ko, C. H., Lee, Y. H., & Lin, S. H. (2016). Proposed diagnostic criteria for smartphone addiction. *PloS one, 11*(11), e0163010. https://doi.org/10.1371/journal.pone.0163010

Mamun, M. A., Hossain, M. S., Moonajilin, M. S., Masud, M. T., Misti, J. M., & Griffiths, M. D. (2020). Does loneliness, self-esteem and psychological distress correlate with problematic internet use? A Bangladeshi survey study. *Asia-Pacific Psychiatry, 12*(2), e12386. https://doi.org/10.1111/appy.12386

Randler, C., Wolfgang, L., Matt, K., Demirhan, E., Horzum, M. B., & Beşoluk, Ş. (2016). Smartphone addiction proneness in relation to sleep and morningness-eveningness in German adolescents. *Journal of behavioral addictions, 5*(3), 465-473. https://doi.org/10.1556/2006.5.2016.056

Seo, D. G., Park, Y., Kim, M. K., & Park, J. (2016). Mobile phone dependency and its impacts on adolescents' social and academic behaviors. *Computers in human behavior, 63*, 282-292. https://doi.org/10.1016/j.chb.2016.05.026.

Siddiqui, A. F. (2018). Self-efficacy as a predictor of stress in medical students of King Khalid University, Saudi Arabia. *Makara Journal of Health Research, 22*(1), 1. https://doi.org/10.7454/msk.v22i1.7742

Slaih, M. A., Khader, Y. S., Amarneh, B. H., Alyahya, M. S., & Al-Adwan, N. T. (2019). Patterns of smartphone use among university students in Jordan. *The Editorial Assistants-Jordan, 30*(1), 54-61. https://doi.org/10.12816/0052936

Taylor, P. (2023). *Forecast number of mobile users worldwide from 2020 to 2025 (in billions)*. Statista. Retrieved

from https://www.statista.com/statistics/218984/number-of-global-mobile-users-since-2010/

Tian, Y., Qin, N., Cao, S., & Gao, F. (2021). Reciprocal associations between shyness, self-esteem, loneliness, depression and Internet addiction in Chinese adolescents. *Addiction Research & Theory, 29*(2), 98-110. https://doi.org/10.1080/16066359.2020.1755657

Villada, C., Hidalgo, V., Almela, M., & Salvador, A. (2017). Assessing performance on an evaluated speaking task. *J. Psychophysiol., 32*, 64-74. https://doi.org/10.1027/0269-8803/a000185

Acknowledgments

I would like to thank the students who contributed to this study.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.