Internet addiction and achievement motivation among university students

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Abstract

Objectives: The current study aims to test the relationship between Internet addiction and achievement motivation among university students. Methods: A descriptive correlation study was conducted to examine the relationship between Internet addiction and achievement motivation. Participants consisted of 350 university students, selected using a simple random sampling technique, from An-Najah National University in the city of Nablus, Palestine. Results: Findings showed a statistically significant negative correlation between Internet addiction and achievement motivation ($r = .24$, $p < .01$). Also, Internet addiction was found to be within mild levels (44.61%) among participants. No significant differences were found in Internet addiction and achievement motivation due to the demographic variables (gender and specialization). **Conclusion:** Further studies exploring the relationship between Internet addiction and other psychological variables are recommended, to provide a more comprehensive understanding of the current landscape so protective and therapeutic programs can be developed in order to decrease Internet addiction and its negative effects.

Keywords: Internet addiction; Achievement motivation, University students.

ملخص

إدمان الإنترنت وعلاقته بدافعية الإنجاز لدى الطلبة الجامعيين

هدفت الدراسة الحالية إلى التعرف على العلاقة بين دافعية الإنجاز وإدمان الإنترنت لدى الطلبة الجامعيين. تكونت عينة الدراسة من 350 مشارك، حيث تم اختيارهم بالطريقة العشوائية البسيطة من طلبة جامعة النجاح الوطنية، فلسطين. وقد أظهرت النتائج أن مستوى إدمان الإنترنت لدى عينة الدراسة بلغ (44.61%)، وهي ضمن المستوى الخفيف، في حين بلغت درجة الدافعية للإنجاز (93.33%)، وهي تشير إلى درجة مرتفعة. كما كشفت النتائج أيضًا عن وجود علاقة سلبية ذات دلالة إحصائية بين إدمان الإنترنت ودافعية الإنجاز حيث معامل الإرتباط ($r = .24$, $p < .01$) ، ولم تظهر نتائج الدراسة فروقاً في مستوى إدمان الإنترنت تبعاً لمتغيرات الدراسة (الجنس، والتخصص).

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Theoretical Background

The Internet provides individuals with a variety of services related to work, study, and even entertainment (Young, 1999). Despite this, excessive and poorly controlled usage of the Internet may lead to psychological impairments or distress, a phenomenon called "Internet addiction" (Weinstein & Lejoyeux, 2010). According to the literature, the prevalence of individuals with Internet addiction among European adolescents is estimated to be between 1.9–2.8%, and between 2.3 and 20.7% in Asian countries (Agbaria & Bdier, 2019a). In a Palestinian context, one study found that 30.1% of Palestinian nurses exhibited high levels of Internet addiction (Alhajjar, 2014), and another study demonstrated that more than 47% of university students engaged in addictive patterns of Internet use (Mahamid & Berte, 2019).

Although the integration of technology into daily life puts all users at risk of developing patterns of addictive Internet use, from a theoretical perspective, adolescents and young adults could be at greater risk for Internet addiction based on distal (e.g., pre-existing psychopathology) and proximal (e.g., negative cognitions that reinforce compulsive use) factors, both of which develop during adolescence (Agbaria, 2020; Xu et al., 2015). Moreover, three categories play a main role in Internet addiction: social features (e.g. social support), personal features (e.g. lack of communication skills), and Internet-related features (e.g. easy Internet access) (Kim & Kim, 2002; Wu, 2004).

The most salient symptoms of Internet addiction are feelings of anxiety, boredom, and depression, especially when the addict is unable to connect to the Internet. In addition, addicts may be more likely to use the Internet to make friends if they have difficulty socializing in the real world, and do not limit the amount of time they spend on the Internet (Sanghvi & Rai, 2015). Furthermore, a study by The Women Issues Centre (2011) explained that the most important motivators for Internet use are; the desire to develop different skills and self-motivation, communication and making friends, and expressing feelings. Other studies indicated a negative relationship between Internet addiction and self-concept clarity for teenagers (Israelashvili et al., 2012; Quinones & Kakabadse, 2015).

According to the literature, it is evident that Internet addiction negatively affects academic performance (Ghulami et al., 2018). For instance, Internet addicts seemed to miss their classes (in which the attendance is obligatory), showed a decline in grades, and worsened their study habits and motivation to study (Gencer & Koc, 2012; Hafiz, 2011; Sachitra, 2016).

Historical development of the concept of achievement motivation indicates that the need to achieve is a motivation of compensation, stemming from experiences in childhood from an Adlerian perspective (Lundin, 1989). Murray (1935) was the first to include this concept as a term in psychology, whereby he defined it as an individual's eagerness to achieve the things that are deemed difficult by others, control their physical and social environment, control and organize ideas, be independent, overcome obstacles, reach measures of excellence, compete with others and be superior against them, be self-motivated and able to achieve successfully (Bahy & Shalaby, 1998). Moreover, McClelland (1985) states that achievement motivation is a fabricated creation in which the feelings of success are related to evaluative performance. These feelings reflect two main components, which are: (1) the desire for success and fear of failure, and (2) make the individual do his best in order not to fail.

Achievement motivation is represented as the desire to be successful. This desire – as described by McClelland (1985), is characterized by ambition, the desire to work independently, confront and solve problems, and preference towards tasks with intermediate levels of risk, as opposed to those with low or a high risk levels (Toq et al., 2002).

Achievement motivation is crucial for humans, as it is necessary to pursue excellence and superiority. However, researchers differ over acceptable degrees of motivation depending on the behaviours of individuals and their success. There are some who see it as necessary to confront difficult tasks and reach excellence, while others are satisfied with the minimum degree of success; this means that there is not a certain or specific degree for the acceptable motivation (Toq et al., 2002).

Individuals with high achievement motivation take work more seriously than others, and achieve greater success across all areas of life (Santrock, 2003). When comparing these individuals with others of the same intellectual level but who possess low achievement motivation, they were found to be more successful. For example, Santrock (2003) found that the first group (highly motivated) recorded better grades in the speed tests in mathematics, pronunciation tasks, and problem solving. Also, they earn higher grades at school and university overall, and they achieve more progress in their society. Students with high achievement motivation are realistic in seizing opportunities, contrary to students with low levels of achievement motivation, who either accept their life as it is, or strive for more than what they currently have accomplished (Santrock, 2003).

With respect to Internet addiction, many studies have explored the relationship between Internet addiction and achievement motivation. Demir and Kultu (2018) examined the relationship between adolescents' level of Internet addiction and academic motivation. It was found that Internet addiction negatively affects academic motivation. Reed and Reay (2015) explored the relationship between problematic levels of Internet use and academic motivation in a sample of university students; the results showed that levels of problematic Internet use were negatively associated with several aspects of motivation to study (e.g. intrinsic goal orientation, control over learning, and learning self-efficacy). In addition, Internet addiction was found to be associated with poor academic performance among adolescents (Xin et al., 2018). Ganji et al. (2016) surveyed the relationship between Internet addiction and academic engagement in students; results revealed a significant, negative relationship between Internet addiction and academic engagement on different bases (emotional, behavioral, cognitive). Furthermore, Internet addiction was found to have a significant effect on academic performance and the mental health of students/adolescents. Students who were classified as having severe and profound Internet addiction showed detrimental effects as a result on both their academic performance and mental health, compared to students who were moderately addicted to the Internet (Singh & Barmola, 2015).

Current Study

Despite the positive important role the Internet plays in academic life, it appears that excessive use of the Internet negatively affects achievement motivation. Since achievement motivation is considered an important factor which affects different aspects of academic life, it is important to study how Internet addiction influences achievement motivation among university students in Palestine, especially considering no study has examined this relationship within a Palestinian context. As a result, this study aims to answer the following questions:

- What is the level of Internet addiction and achievement motivation among Palestinian university students?
- Is there a significant correlation between Internet addiction and achievement motivation among Palestinian university students?
- Are there significant differences in the level of Internet addiction with respect to study variables (gender and specialization)?
- Are there significant differences in the level of achievement motivation with respect to study variables (gender and specialization)?

Methodology

Study design

A descriptive correlation study was conducted in 2019 among university students from An-Najah National University, Palestine, who were selected using a simple random sampling method.

Sample

Participants were selected from An-Najah National University, using a simple random sampling method. Participants consisted of 350 students, 31.3% of which were male, and 68.7 percent were female. 42.7 percent of students specialized in science, and 57.3 percent of students specialized in humanities. Participants of this study were characterized by being: 1) Palestinians, 2) native Arabic speakers, and 3) registered in the second semester in the academic year 2019/2020. The research was conducted in accordance with the ethical guidelines of the American Psychological Association (APA; 2010) and the Declaration of Helsinki (1967), and had been

approved by the An-Najah Institutional Review Board (IRB).

Study instruments

Demographic Variables Questionnaire

This instrument's variables included gender and academic specialization.

Internet addiction Scale

The 20-item Internet Addiction Test (IAT) was developed by Young (1998). It measures characteristics and behaviors associated with the use of the Internet, which include compulsivity, escapism, and dependency. Questions also assess problems related to personal, occupational, and social functioning, stemming from Internet use. Participants responded to each statement with a number between 1 and 5, representing a Likert scale continuum, to indicate the extent to which they endorse that particular behavior. The IAT views Internet addiction as an impulse-control disorder, where the term Internet refers to all types of online activities. Several studies applied this scale in the Palestinian context, and found that Cronbach's alpha was (α = .78) and (α = .82) (Agbaria & Bdier, 2019a, 2019b).

Achievement motivation scale

The study used Herman's (1970) Scale for Achievement Motivation. The scale consists of 28 items used to assess achievement motivation among university students. All items are rated on a five-point scale: 1 (never), 2 (rarely), 3 (sometimes), 4 (mostly), and 5 (always). The scores of the achievement motivation scale range between 128-28, where 128 represents the highest level of achievement motivation and 28 represents the lowest level of achievement motivation. This scale was translated and validated in the Arabian context. Cronbach's alpha was found to be (α = .85) in the Palestinian context (Al-Hloul, 2017).

Data analysis

Statistical Package of Social Sciences (SPSS) was used for data analysis. Means and standard deviations were calculated for study variables, while Pearson's correlation coefficient was used to test the relationship between Internet addiction and achievement motivation among participants. Differences in the means between variables, with regard to Internet addiction and achievement motivation, were assessed using an analysis of variance (ANOVA) test.

Results

Overall, the students scored mild degree of Internet addiction (44.61), with high scores on achievement motivation (93.30%), as indicated in Table 1.

Table 1

Means and standard deviations for research variables (N=386)

Variable	Mean	SD	Min	Max
Achievement motivation	93.30	10.73	70	117
Internet addiction	44.61	18.55	11	100

As shown in Table 2, achievement motivation was negatively correlated with Internet addiction.

Results of Table 2 show a statistically significant negative correlation between achievement motivation and Internet addiction (r =.25, p < .01).

Table 2

Correlations among study variables (N=386)

Measures	(1)	(2)
(1) Achievement motivation	-	-.25**
(2) Internet addiction		-

*p < 0.05, **p < 0.01

Means and standard deviations (Table 3) showed apparent differences in Internet addiction with respect to gender and academic specialization variables.

Table 3

Means and standard deviations in Internet addiction with respect to study variables (N=386)

Variable	Mean	N	SD
Gender			
Male	46.19	121	15
Female	43.89	265	19.94

Total	44.61	386	18.55
Specialization			
Scientific	42.65	165	19.89
Human	47.23	221	16.27
Total	44.61	386	18.55

To test the significance of differences in Internet addiction with respect to study variables, an ANOVA was calculated (Table 4).

Table 4

Analysis of variance for Internet addiction with respect to study variables (N=386)

variable	SS	DF	MS	*F*	Sig
Gender	1.93	1	1.93	.006	.940
Specialization	1539.27	1	1539.27	4.51	.03*
Total	132489.71	386			

R^2 = .015 (Adjusted R Squared = .010)

Table 4 showed a statistically significant difference in Internet addiction with respect to academic specialization, in favor of specializations in the humanities ($\bar{x}$ = 47.23, SD = 16.27) compared to scientific specializations ($\bar{x}$ = 42.65, SD = 19.89). Means and standard deviations (Table 5) showed apparent differences in achievement motivation with respect to both gender and academic specialization variables.

Table 5

Means and standard deviations in achievement motivation due to study variables (N=386)

Variable	Mean	N	SD
Gender			
Male	86.87	121	8.87
Female	96.24	265	10.23
Total	93.30	386	10.73
Specialization			
Scientific	86.66	165	8.07
Human	98.26	221	9.80
Total	93.30	386	10.73

To test the significance of differences in achievement motivation with respect to study variables, an ANOVA was calculated (Table 6).

Table 6

Analysis of variance for achievement motivation with respect to study variables (N=386)

Sours	SS	DF	MS	*F*	Sig
Gender	1560.08	1	1560.08	19.84	.000**
Specialization	6980.36	1	6980.36	88.77	.000**
Total	44386.31	386			

R^2 = .015 (Adjusted R Squared = .010)

Table 6 showed a statistically significant difference in academic motivation with respect to gender, with female students showing ($\bar{x}$ = 96.24, SD= 10.23) compared to male students showing ($\bar{x}$= 86.87, SD= 8.87). Results also showed a statistically significant difference in achievement motivation with respect to academic specialization, in favor of specializations in the humanities ($\bar{x}$ = 98.26, SD = 9.80) compared to scientific specializations ($\bar{x}$ = 86.66, SD = 8.07).

Discussion

When measuring the degree of Internet addiction and achievement motivation among university students, results show that the level of addiction is low, while the level of achievement motivation is high. These results are in line with some studies (e.g. Mahamid & Berte, 2018a, 2018b) which showed that Palestinian youth suffer from stressful living conditions, related to the current occupation, blocks, and checkpoints in the West Bank. Moreover, there is widespread unemployment among Palestinian youth, therefore, engaging in activities on the Internet may be a method of coping with their free time. As such, the virtual environment of the Internet becomes a safe place for youth who lack responsibilities or purpose to interact and fill their free time. With regards to the high level of achievement motivation, this can be explained, in

part by the difficult social and economic conditions Palestinians are facing as a result of the Israeli occupation; with Palestinian youth pursuing Master and PhD degrees, to increase their chances of securing a job in a scarce market.

When analyzing the relationship between Internet addiction and achievement motivation among university students, results showed that there is a statistically significant negative correlation between Internet addiction and achievement motivation. These results support those of previous studies (e.g. Al-Ghamidi, 2008; Demir & Kultu, 2018; Ganji et al., 2016; Reed & Reay, 2015), which indicate a negative relationship between Internet addiction and achievement motivation for university students. Internet addiction plays a negative role concerning the amount of time students spend using social media. Uncontrolled use of the Internet in this way interferes with the time students have to study and prepare for academic tasks; therefore, extreme use of the Internet might decrease students' achievement and their interest in studying. As the Internet is so easily accessible to all populations, those who have additional free time that is spent on the Internet, tend to develop patterns of Internet addiction.

When testing the differences in university students' Internet addiction with respect to gender and specialization variables, results indicated that there were no statistically significant differences in the degree of Internet addiction related to gender and specialization. These results support those of similar studies (e.g. Ghamari et al., 2011; Scimeca et al., 2014; Usman et al., 2014). Palestinian youth live within the same circumstances regardless of their academic specialization and gender; Palestinian society currently suffers from different social and psychological crises, represented by occupation and difficult economic circumstances, which impact university students, regardless of gender or specialization. In addition, Palestinian families suffer from a lack of income resources, which reflect on university students. Despite the fact that Palestinian society is described as collectivistic, Palestinian youth tend to behave in an individualistic manner, and use the Internet as a way to escape from this reality.

Results showed that there are statistically significant differences in achievement motivation between males and females, with females having higher levels of achievement motivation. Also, the results indicate that there are statistically significant differences in the degree of achievement motivation with respect to academic specialization, in favour of the humanities. These results support previous studies (e.g. D'Lima et al., 2014; Visser, 2013), indicating that females are more motivated than males in terms of academic achievement. This may be due, in part to the conventions within Palestinian society, as it is considered to be male-dominated. For women, getting a job opportunity, a social position, and/or a social or political occupation requires a huge effort. As a result, females make more of an effort than males to achieve academically and earn high academic grades. The differences in achievement motivation between academic specializations might also be related to the nature of job opportunities that are available in Palestinian society. For example, students within the scientific college have more job opportunities than those within the humanities college, which may encourage students from humanities colleges to achieve higher grades, increasing their likelihood of securing a job.

This study has several limitations, the first of which is that this study was applied to a specific population (i.e. university students), so other populations needed to be examined in respect to study variables. Second, the quantitative data was obtained through self-report methods only; so the data could lack objectivity. Third, this study was limited to gender and academic specialization only as demographic variables, therefore further studies examining other demographic variables are recommended.

Conclusion

The current study supports previous findings demonstrating that Internet addiction is significantly and negatively related to achievement motivation, and that mild levels of Internet addiction were present among Palestinian university students. Further studies exploring the relationship between Internet addiction and other psychological variables are recommended, to provide a more comprehensive understanding of the current landscape so protective and therapeutic programs can be developed in order to decrease Internet addiction and its negative effects.

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