Cyberbullying and Internet addiction among Palestinian Adolescents

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Abstract

The current study aims to identify the correlation between cyberbullying behavior and Internet Addiction (IA) among Palestinian adolescents. The study sample consists of 500 participants, selected using simple random methods, from five schools in the northern part of the West Bank, Palestine. Results indicated that a level of IA among the study sample was in part due to frequent improper use (69.67%), and the degree of cyberbullying behavior was on a moderate level (66.83%). Results also revealed a statistically significant positive correlation between IA and cyberbullying behavior (r =.23, p < .01). No significant differences were found in IA and cyberbullying behavior across gender and grade level of participants.

*Keywords***:** Internet Addiction (IA), Cyberbullying behavior, Palestinian adolescents

ملخص

التنمر الإلكتروني والإدمان على الإنترنت لدى المراهقين الفلسطينيين

هدفت الدراسة الحالية إلى التعرف على العلاقة بين التنمر الإلكتروني وإدمان الإنترنت لدى المراهقين الفلسطينيين. تكونت عينة الدراسة من 500 مشارك تم اختيارهم بالطريقة العشوائية البسيطة من خمس مدارس في شمال الضفة الغربية في فلسطين. وقد أظهرت النتائج أن مستوى إدمان الإنترنت لدى عينة الدراسة قد بلغ (69.67%)، وهي ضمن المستوى المتوسط، في حين بلغت درجة التنمر الإلكتروني (66.83%)، وهي تشير إلى درجة متوسطة كذلك. كما كشفت النتائج أيضًا عن وجود علاقة إيجابية ذات دلالة إحصائية بين إدمان الإنترنت والتمر الإلكتروني حيث معامل الارتباط (01. > r =.23, p)، ولم تظهر نتائج الدراسة فروقاً في مستوى إدمان الإنترنت تبعاً لمتغيرات الدراسة، الجنس، والصف الدراسي.

Theoretical Background

The use of social media has become a regular phenomenon, which is directly related to the rapid development of technology and the growth of information technology. As a result of easy access to the Internet, adolescents tend to spend more time in this technological world, in part due to the opportunities provided by online social networks. Consequently, this time spent on the Internet has also brought about negative impacts on the behavior of adolescents, such as Internet Addiction (IA), cyberbullying, pornography, fraud, online abuse, and other health risks, which may have a negative influence on their growth in terms of social, mental and emotional levels (Kuss & Griffiths, 2011).

Cyberbullying behavior and IA are serious issues adolescents are facing with the increase of technology in their everyday lives. The percentage of adolescents who use the Internet has increased from 413 million to 3.4 billion in 2016 (Roser & et al, 2015), especially for the use of social networking sites, chat rooms, and instant messaging applications (Dredge & Glasson, 2014).

Prior to the emergence of technology, addiction was commonly associated with drugs, while nowadays it is more often associated with the Internet. The severity of IA has prompted some countries, such as China and South Korea, to consider it a threat to human health (Cash, 2012). The American Psychiatric Association (APA) has considered it to be a common disorder that deserves to be included in the DSM-5 (2013).

Zian El-Abidine and Mokhtar (2015) defined IA as the inability to control motivations associated with the Internet. Sato (2006) considered IA as a disorder in controlling one's motivations and desires with regard to the Internet, while Young (1998) debated that it is a disorder of controlling the motivation that is free of alcohol. Such addiction leads to an urgent need to be connected to the Internet, a state of longing, an inability for the individual to relinquish thoughts connected to the Internet, and a loss of time sensation when connected. Several studies (Gregory, 2019; Samaha and Hawi, 2016) indicated diagnostic criteria for IA as follows: Preoccupation and thinking about using the Internet; always in need for more time to use the Internet and failure to control the use of the Internet; mood swings; anxiety; and depression.

By the same token, Young (1998) showed that addiction to the Internet disrupts the scientific, social, functional, and economic aspects of an individual's life, parallel to those found in gambling, nutritional imbalances, and alcohol abuse. Further, Neverkovichet al (2018) studied the social, educational, and psychological implications of IA among Russian adolescents aged 14-18. Results indicated that IA affected the adolescents' life styles, as participants suffered from the inability to control time, set priorities, build robust social relationships, and have the sufficient time to carry out their educational tasks. They felt irritable, angry, and nervous in addition to neglecting their personal needs when absent from their online social network.

WS et al. (2018) has shown that the state of IA coincides with severe levels of anxiety, depression, and lack of self-esteem, as well as high rates of mood disorders among selected students of secondary school in the Klang Valley, Malaysia. Li et al (2014) attempted to test the prevalence of IA among primary and middle school students in China. Results indicated that the degree of IA was related to the nature of the websites used by students, and their purpose of use. The percentage of Internet addicts was higher among adolescents who browsed in Internet cafes (18.1%) and played games online (22.5%).

Online communication has become an important focus in teenagers lives, as it provides them the opportunity to build intimate relationships. However, violent interactions may also occur. Previous studies have indicated that cyberbullying might be a threat to adolescents' health and well-being (Nixon, 2014), and can create lasting mental and emotional effects (Hinduja & Patchin, 2007; Lowenstein, 2014). Cyberbullying is the most common and serious threat that adolescents face while using contemporary information and communication technologies (Hinduja & Patchin, 2007; Lowenstein, 2014). This type of bullying has serious consequences on their social, educational, and emotional state.

Students who are victims of cyberbullying often suffer from low school grades, low self-esteem, changes in interests and depression as a result (Li, 2010). It also increases levels of anxiety, loneliness, suicidal attempts, and negative symptoms on one's health. Cyberbullies, on the other hand, are likely to abuse drugs, show aggression, and engage in deviant behaviors (Nixon, 2014).

The availability of an appropriate environment represented in cyberspace exploitation enables adolescents to harm others (Fekkes, 2004). Electronic communication technologies provide children and adolescents with new means of bullying each other via, for instance, digital photography and faster Internet connections. Statistics have revealed that 80% of children in the United States and United Kingdom have mobile phones and accounts on various social networks, inevitably leading to an increase in cyberbullying in these countries. Instant messaging, web pages, and text messaging are all easily accessible, and used by cyberbullies as harmful tools (Tettegah & Hunter, 2006).

Bullying through cyberspace enables the perpetrator to hide his or her identity, allowing children and adolescents to adopt a more hostile personality than they might express in real life. In addition, people can hide behind fake names, which make the electronic environment a more attractive environment to intimidate others (Jafarkarimi et al., 2016). Once these features are available to bullies, the issue becomes more serious and complicated, as most young bullies look to dominate those that share their interests (Khan & Kausar, 2013), as adolescents tend to develop emotional and social relationships with their peers (Nansel et al., 2001)

The widespread use of the Internet has contributed to the complication and increase in severity of cyberbullying (Barker et al., 2008). A study of 276 adolescents aged 14-18 years showed that 32% of adolescents were victims of bullying, and 26% of adolescents engaged in bullying. The study also revealed that frequent use of the Internet caused a rise in online bullying opportunities (Sharma et al., 2017).

Children who are allowed unrestricted access to the Internet may encounter harmful information that may be dangerous to their well-being, creating lasting mental and emotional effects (Lowenstein, 2014). In addition, it can lead to an increase in anxiety, fear of attending school, depression, social isolation, and in some cases, violence or suicide (Kumar & Mondal, 2018). Adolescents are more at risk of cyberbullying than elderly or young adult populations, as they are more likely to use the Internet for social interactions and activities (Mitchell et al., 2007). Cyberspace and electronic environments are more attractive to intimidation because the Internet allows children and adolescents to adopt a more

aggressive personality than they might express in real life.

Previous studies have focused greatly on the relationship between IA and cyberbullying. For example, Al-Amar (2016) explored the relationship between IA and cyberbullying across different demographic variables among school students in the State of Kuwait. Results showed statistically significant positive correlations between IA and cyberbullying. Jung et al., (2014) evaluated the associations between cyberbullying behaviors and problematic Internet use. Results showed that cyberbullying behaviors were associated with problematic Internet use and various psychopathological? symptoms. Chang et al. (2015) found that adolescent IA was associated with cyberbullying, smoking, consumption of alcohol, and depression among junior high school students in Taiwan. Touloupis and Athanasiades (2014) investigated IA and cyberbullying in relation to students' gender and academic achievement. Results showed that IA and cyberbullying are positively related to each other, however IA and cyberbullying are not related with students' academic achievement; regarding gender, it was found that the pathological use of the Internet is significantly higher among boys than girls.

IA and cyberbullying are not exclusive to a specific geographical, social, or cultural environment, rather, to cyberspace itself, resulting in the phenomenon of a global dimension (Ybarra & Mitchell, 2004). Palestine is part of this cyber world, especially because of access to widespread means of communication via Internet. Research indicates that the percentage of Palestinian families who own smartphones is 90.0%, and those who own a computer is 63.1% (Al-Qasim and Mohammad, 2015). As for the current use of the Internet in Palestine, it is 75.1% of the Palestinian population; 53.3% of Internet Palestinian users use social networks; and. 76.5% use the Internet for gaming and entertainment, and 62.0% use the Internet for telecommunication. Overall, the number of Internet subscribers has increased by 198% since 2010 (Palestinian Central Bureau of Statistics, 2018).

These statistics indicate the extent to which Internet usage has developed. Accompanied by numerous consequences, this will have a disastrous effect on society in general. Many young people are becoming victims of bullying and extortion (Moosa,

2018). In reality, the increase of extortion, defamation, moral crimes, harassment, fraud and theft of web pages are direct expressions of cyberbullying, highlighting the need to pass cyberbullying laws against crimes to control this serious phenomenon. In 2018, a law concerning cybercrimes was passed in Palestine to regulate Internet usage, in addition to setting out penalties with regard to cybercrimes, including but not limited to, cyberbullying. (Al-Muqtafi, 2018) Overall, previous literature confirms that there are many challenges and consequences of the Internet technologies that can affect and impact Palestinian cyber reality on all levels.

The Study

The use of the Internet and its associated negative aspects, including cyberbullying, has become a source of anxiety and fear among the various components of society and is one of the most dangerous issues that has coincided with the prevalence of social networks in Palestinian schools (Alam et al., 2014). Adolescents use social media outlets without understanding the nature of the information posted on the Internet, as well as spending a lot of time using the Internet, leading to disastrous impact on one's health, school work, and social interactions, more specifically; exploitation and being threatened (Al-Dahshan, 2016). The Palestinian cyber-environment is part of the global cyberspace which facilitates the way adolescents engage with such space and cybercrimes.

However, despite the seriousness of IA and cyberbullying, it is noted that there is currently a lack of research testing the relationship between these variables in a Palestinian context. Therefore, the current study was set up to answer the following questions:

- What is the degree of IA and cyberbullying among Palestinian adolescents?
- Is there a significant correlation between IA and cyberbullying among Palestinian adolescents?
- Are there significant differences in IA due to the study variables of gender and grade?
- Are there significant differences in cyberbullying due to the study variables of gender and grade?

Methodology

Study design

A correlational study was conducted in 2019 across 500 adolescent students who were selected using simple random methods from five schools in the northern part of the West Bank, Palestine.

Participants

Participants in the study consisted of 500 adolescents, between the ages of 15 and 17. The sample was selected from five schools in the north of West Bank, Palestine. 266 were males and 234 were females. 160 participants were in the eighth grade, 166 were in the ninth grade, and 174 were in the tenth grade.

Demographic Variables

Demographic variables measured were gender and grade level.

Internet Addiction Test (IAT)

The 20-item (IAT) was developed by Young (1998). This test is used to measure characteristics and behaviors associated with compulsive use of the Internet, including; compulsivity, escapism, and dependence. 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 on a Likert scale continuum, to indicate the extent to which they endorse that particular behavior. The IAT views IA as an impulse-control disorder, where the term Internet refers to all types of online activities.

Cyberbullying Questionnaire

A cyberbullying questionnaire was developed based on the practical and theoretical literature (Al-Amar, 2016; Jungetal.,2014; Stewart, 2014). The Questionnaire was used to measure cyberbullying behavior among participants. A committee of 5 psychology experts reviewed the items of the questionnaire for content validity and comprehensiveness and they have provided their feedback accordingly. As a result, the author changed the interpretation of some items, on the basis of such feedback. Cronbach's alpha formula was used among a sample of 60 school students to assess internal consistency of the cyberbullying questionnaire. Cronbach's alpha coefficients indicated high internal consistency for the questionnaire (0.80).

Tenth	69.71	174	7.76
Total	69.67	500	7.34

Results

Adolescents means and standard deviations for total scores of IA and cyberbullying behaviors were calculated, as shown in Table 1, to find the degree of IA and cyberbullying behaviors.

Table1
Means and standard deviations for research variables (N=500)

Variable	Mean	SD	Min	Max
Cyberbullying	66.83	13.32	41	106
IA	69.67	7.34	53	90

Results of Table 1 show that participants displayed occasional or frequent levels on IA and moderate problems towards cyberbullying behavior.

Adolescents Pearson's correlation coefficient was calculated, as shown in Table 2, to determine whether a significant correlation between IA and cyberbullying behaviors exists.

Table2
Correlations among study variables (N=500)

Measures	(1)	(2)
(1) Cyberbullying	-	.23**
(2) IA		-

**p < 0.01

Results in Table 2 show a statistically significant, positive correlation between IA and cyberbullying (r =.23, p < .01).

Grade means and standard deviations for study variables were tested to analyze whether significant differences exist across gender and grade level in regards to levels of IA, as shown in Table 3.

Table3
Means and standard deviations in IA due to study variables (N=500)

Variable	Mean	N	SD
Gender			
Male	69.09	266	7.33
Female	70.32	234	7.32
Total	69.67	500	7.34
Grade			
Eighth	69.27	160	6.98
Ninth	70.00	166	7.27

Results of Table 3 show differences in IA due to gender and grade level. To test the significance of these differences, an analysis of variance (ANOVA) was calculated in Table 4.

Table4
Analysis of variance for IA due to study variables (N=500)

Sours	SS	DF	MS	*F*	Sig
Gender	155.37	1	155.37	2.88	.09
Grade	12.69	2	6.34	.11	.88
Total	26956.55	500			

R^2 = .007 (Adjusted R Squared = .001)

Table 4 shows that differences in IA are not statistically significant.

Grade and gender means of study variables were tested to determine whether statistically significant differences exist due to gender and grade in regards to cyberbullying behaviors, as shown in Table 5.

Table5
Means and standard deviations in cyberbullying due to study variables (N=500)

Variable	Mean	N	SD
Gender			
Male	67.41	266	12.88
Female	66.17	234	13.80
Total	66.83	500	13.32
Grade			
Eighth	67.48	160	12.26
Ninth	65.54	166	14.55
Tenth	67.47	174	13.02
Total	66.83	500	13.32

Results of Table 5 show differences between means of cyberbullying due to gender and grade. To test the significance of these differences, an analysis of variance (ANOVA) was calculated in Table 6.

Table6
Analysis of variance for cyberbullying due to study variables (N=500)

Sours	SS	DF	MS	*F*	Sig
Gender	32.77	1	32.77	.18	.66
Grade	259.20	2	129.60	.72	.48

Total	88626.55	500

$R^2 = .005$ (Adjusted R Squared = -.001)

Table 6 showed no statistically significant differences in cyberbullying behavior between gender and grade.

Discussion

This study aimed to explore the relationship between IA and cyberbullying among Palestinian adolescents.

Results from Table 1 show that students have high levels of IA and moderate levels with cyberbullying behavior. These results could be motivated by the violent political conditions in which Palestinian adolescents live, which affects their mental health, psychological interpersonal relationships, and engaging in high risk behavior (Al-Krenawi & Graham, 2012; Ghrayeb et al., 2014).

Inconsistent with previous studies, the results showed no statistically significant differences in regards to levels of IA (Al-Amar, 2016; Berte et al., 2019; Malak et al., 2017; Shek& Yu, 2016; Xin et al., 2018) or cyberbullying behaviors between gender or grade level (Bergmann & Baier, 2018; Festl et al., 2015; Heiman & Olenik-Shemesh, 2015; Leung et al., 2018; Sharma et al., 2017; Sun et al., 2016) This could be explained due to other demographic variables such as economic status and place of residence (i.e. social context), or due to other psychological characteristics of the participants that may affect levels of IA and cyberbullying, such as self-control and self-efficacy.

Moreover, IA was found to be positively correlated, and statistically significant with acts of cyberbullying among Palestinian adolescents. This result corresponds to the results of previous studies confirming that Internet addicts are more likely to be cyberbullies (Al-Amar, 2016; Chang et al., 2015; Nartgün & Cicioğlu, 2015; Tsitsika et al., 2015). This could be in light of the fact that Internet addicts often suffer from behavioral and psychological disorders, and as such may easily harm others (Kuss & Griffiths, 2011). Moreover, since problematic Internet use is characterized by a loss of control over one's compulsive connection to the Internet, this could lead to difficulty in self-regulating online behaviors such as bullying (Gamez-Guadix et al., 2016). On the other hand, bullying through cyberspace is encouraging cyberbullies, since they are able to stay anonymous and can bully others while staying at home (Görzig & Ólafsson, 2013).

As pretainig to gender, no statistically significant differences in regards to levels of IA were found, which coincides with results from Dufour et al (2016) when studying Quebecois high school students, as well as those found in Smahel et al (2012). This could be due to equal opportunities to access Internet by both genders (Tran et al., 2017). Results also showed no statistically significant differences in IA in relation to grade level, which is consistent with the findings in Şahin (2014), whose results showed no significant differences in the prevalence of IA among 9th and 10th graders. This could be because adolescents in both grades are within the same developmental stage, sharing psychological and social features, mutual interests and tendency.

Conclusion

The current study supported findings from previous literature demonstrating a positive, significant correlation between IA and cyberbullying. On the other hand, results from the current study were inconsistent with previous findings; levels of IA and cyberbullying did not differ based on the gender or grade level of participants. Overall, future studies may consider controlling psychological and demographic factors such as, mental stress, economic conditions and dysfunctional families, to find statistically significant results within Palestinian adolescents

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