Internet addiction and psychological morbidity among nursing students in Gaza-Palestine

Bashir Ibrahim Alhajjar

Faculty of Nursing, the Islamic University of Gaza, Gaza Strip, Palestine

Email address:

bashirhajjar@yahoo.com

Abstract: Despite the positive aspects of the internet have been readily praised over the last years, there has been increased interest in the addictive potential of the internet. The present study was conducted in order to investigate not only the prevalence of internet addiction among the nursing students at the Islamic University of Gaza, but also the relationship between internet addictions and psychological morbidity. At the beginning of first semester of the academic year 2013/2014, all nursing students from second, third, and fourth year students-excluding first year students-were handed the questionnaires, which included the Arabic versions of Internet Addiction Test (IAT), the General Health Questionnaire (GHQ-12), and demographic data. A total of 236 nursing students completed and returned the questionnaires. Female participants were 124 (52.5%) and fourth year students were 107 (45.3%). Results indicated that 30.1% of participants scored high level of internet addiction. Male nursing students were significantly higher than females in both internet addiction and psychological morbidity. No significant differences in IAT or GHQ-12 were found among nursing students due to study year. The results showed that there is significant positive correlation between internet addiction and psychological morbidity. It can be concluded that Palestinian nursing students in Gaza are highly addicted on internet and this affected their psychological morbidity. A program to reduce addiction on internet is suggested and comfortable study environment is recommended.

Keywords: Internet Addiction, Psychological Morbidity, Nursing Students, Gaza-Palestine

1. Introduction

The internet is considered as the most effective tool in all areas of science, business, education, culture, and politics (Christakis, 2010). Young people are generally believed to constitute the majority of Internet users. An increasing number of studies have revealed that some youngsters are compulsive in their use of the Internet and exhibit addictive behaviors very similar to those related to alcoholism, substance addiction and pathological gambling (Ha et al, 2006; Petry, 2006).

Increasingly usage of computer technology and widespread dominance of the internet has faced many people particularly university students and extremely usage of it results in mental and psychological disorders (Kormas et al, 2011). Internet addiction is one of the harmful effects of the Internet (Bidi et al, 2012), and is a new form of psychological disorder in 21th century as it can cause physical and mental health disorders (Christakis, 2010). The most common definition of "internet addiction" is that the internet provides a behavioral dependency (Guangheng et al, 2011). Internet is not an enemy but it can cause addiction and for various reasons takes people away from real life and will impact negatively on their lives (Nasiri et al, 2011).

This study aimed to determine prevalence of internet addiction among nursing students and its association with psychological morbidity and other factors. There is an abundance of literature in relation to university students' addiction on internet but nothing has been undertaken in Gaza.

It is especially important to look at Gaza given the conditions in which many nursing students have to study after two wars imposed in few years and continuous comprehensive siege that affects all life aspects in Gaza.

2. Methods

The descriptive correlational design was used in this study. The survey was conducted from October 2013 to December 2013. The population studied comprised all

nursing students at the Islamic University of Gaza. After obtaining ethical approval from the authorized administrations, the Arabic versions of questionnaires were handed to all eligible nursing schools (n=236) to participate as study respondents. Participants provided their consent prior the completion of the questionnaire, after reading a summary of information regarding the purpose of the survey, and their confidentiality and anonymity were assured on at the front page. The total time required to answer the questionnaire was estimated at approximately 20 minutes.

2.1. Research Questions

2.1.1. Main Question

What is the nature of association between internet addiction and psychological morbidity among nursing students in Gaza Strip?

2.1.2. Sub-Questions

- What is the prevalence of internet addiction among nursing students in Gaza Strip?
- Are there any differences in the level of internet addiction among nursing students in Gaza associated with pertinent variables such as gender and year of study?
- Is there a significant correlation between level of internet addiction and psychological morbidity?

2.2. Instrument

The Arabic version of Internet Addiction Test (IAT) was used to measure addiction on internet. Originally, IAT was designed by Young (2009). The Arabic version of IAT has been validated in a study conducted in Lebanon by Hawi (2013). IAT is the most commonly used instrument for the measurement of internet addiction. It consists of 20 items that asks respondents to indicate the frequency over the work year with which they have experienced each feeling on a 6-point scale ranging from 0 (Does not apply) to 5 (Always). A score of 20-49 suggests controlled usage (mild addiction), a score of 50-79 suggests occasional or frequent problems (moderate addiction); and a score of 80-100 suggests significant problems (severe addiction).

Respondents' psychological morbidity was measured using Arabic version of GHQ-12. GHQ is a widely used instrument for measuring the status of mental health. GHQ-12 designed by Goldberg, has reliability coefficients ranging from 0.78 to 0.95 in various studies with a well-established international validity (Goldberg, 1992). GHQ-12 uses a four-point Likert scale ranging from 0-3. GHQ-12 scores are calculated by summing up the scores of all 12 items giving a score range of 0-36. A score>15 suggests evidence of distress and a score>20 suggests severe problems and psychological distress.

2.3. Participants

The questionnaires were handed to all available members of the population to ensure more reliability of data. The response rate was 73.75%; 236 out of 320 nursing students returned the completed survey forms.

2.4. Data Analysis

SPSS.19 statistical system was used to analyze the data in this study. Statistical assumptions were tested prior to running the analyses, and all variables were found to satisfy the assumptions for the normal distribution, homogeneity of variance and independence of observations. In this study, reliability Coefficients (Cronbach's Alpha) of Internet Addiction Test (IAT) was 0.82, and the General Health Questionnaire (GHQ-12) was 0.87.

3. Results

A total of 236 questionnaires were returned and females represented 52.5% respondents, and 45.3% of participants were from the fourth year nursing students (Table 1).

Table 1. General characteristics of the respondents (N = 236)

Variable	Definition	Frequency	Valid Percent
Gender	Male	112	47.5
	Female	124	52.5
Year of study	Second	57	24.2
	Third	72	30.5
	Fourth	107	45.3

As shown in Table 2, more than 30% (n=71) of the respondents fell into a 'severe addiction' category, and an additional 22.5% (n=53) were in the 'average' group. Only 47.4% (n=112) scored low on this measure. More than 23% (n=56) of the respondents scored high on the psychological morbidity, and 59.7% (n=141) scored in the medium psychological morbidity group. Only 16.5% (n=39) scored low on this measure.

Table 2. Prevalence of internet addiction in nursing students

Scale	Level	Frequency	Percentage
Internet Addiction (IAT)	High	71	30.1
	Moderate	53	22.5
	Low	112	47.4
General Health (GHQ-12)	High	56	23.8
	Moderate	141	59.7
	Low	39	16.5

The independent sample t-test output Table 3 shows that there is significant difference between males and females in IAT (P=0.002). Obviously, male nursing students had higher means of IAT. Also, it shows significant difference in GHQ-12 due to gender (P<0.05).

The ANOVA output Table 4 shows no significant differences (F=2.6676, P>0.05) in IAT due to year of study. Also, it shows no significant differences (F=0.956, P>0.05) in GHQ-12 due to year of study.

Table 3. Differences in IAT and GHQ-12 due to gender

MBI		N	Mean	SD	t value	P	Diff-means (95% CIs)
IAT	Male	112	39.6	19.9	3.165	0.002	8.7 (3.3, 14.2)
	Female	124	30.8	22.3			
GHQ-12	Male	112	19.2	4.6	2.204	0.031	1.1 (0.1, 2.1)
	Female	124	18.1	3.3			

Table 4. Differences in IAT and GHQ-12 due to year of study

Test		N	Mean	SD	F (df)	P
IAT	Second	57	31.2	16.4	2.676 (2, 233)	0.071
	Third	72	39.6	24.1		
	Fourth	107	33.9	21.9		
GHQ-12	Second	57	18.0	3.6	0.956 (2, 233)	0.386
	Third	72	18.7	4.4		
	Fourth	107	18.6	3.9		

Pearson Correlations Table 5 shows that correlation between IAT and GHQ-12 is significantly positive but it is not very strong correlation.

Table 5. Pearson Correlations between IAT and GHQ-12

Measure	IAT	GHQ-12
IAT	1	
GHQ-12	0.176**	1

** Correlation is significant at the 0.01 level (2-tailed).

4. Discussion

The results of this study showed that 30.1 percent of the respondents experienced high addiction on internet. The results of the present study may be regarded as significant indicators of the prevalence of internet addiction among Palestinian nursing students in Gaza Strip. The literature suggests that younger adults tended to experience higher levels of internet addiction than did older ones (Ferraro et al, 2007; Choi, 2009; King-Wa et al, 2010). Internet provides a virtual world in which, students contemporarily forget the stress of academic performance and it is very attractive for them (Nasiri et al, 2011. However, heavy internet usage may result in problems in academic performance and social interaction (Wang et al, 2011). No national studies have been conducted in Gaza to compare. When compared with other international studies; the present findings suggest that nursing students in Gaza experience severe levels of internet addiction higher than Iranian and American college students (Nasiri et al, 2011; Christakis et al, 2011).

The results of this study showed that 23.8 percent of the respondents experienced high psychological morbidity. In general, nursing students face stress factors in their educational experiences including hospital environment, death and dying patients, clinical skills, relationship with nurses and patients, examinations and academic workload and lack of free time (Gibbons et al 2009, Pryjmachuk & Richards 2008). For comparison, 7.7-28.6 % of Chinese nursing students have psychological problems (Ni et al,

2010); 20-55% of British nursing students reported harmful stress levels (Pryjmachuk & Richards 2008); 35.7% of medical sciences-particularly nursing-students in Iran experience mental health problems (Lotfi et al, 2010); and 35.2% of Greek nursing students had psychiatric morbidity (Papazisis et al, 2008).

Psychological morbidity was found to be positively correlated with internet addiction. Considering the changes Internet addiction causes in a person's life, such as making difference in lifestyle in order to spend more time on the Internet, a general decrease in physical activity, neglecting the health status as a result of Internet abuse, avoiding significant activities of life in order to have more time for Internet application, reduced social relationships, and neglecting the family and friends (Tsitsika et al, 2009). This shows the importance of paying more attention to nursing students' psychological morbidity. It is the time to support nursing students by their faculty especially when they study in such difficult situations in Gaza. This result was in line with Iqbal et al (2014), Kutty & Sreeramareddy (2014), Muusses et al (2014), Yoo et al (2013), Bidi et al (2012), Alavi et al (2010), and Kim et al (2006).

Results of Ghamari, et al (2011) showed that male gender was one of the main predictors of internet addiction. In other studies such as those of Iqbal et al (2014), Deng et al (2007), Tsai et al (2009) and Ceyhan (2008) a significant difference was observed between the two sexes. Studies have shown that young male internet users have a higher risk of addiction (Widyanto & McMurran, 2004; Ferraro et al, 2007; Choi, 2009). Kutty & Sreeramareddy (2014) found no significant differences in internet addiction between male and female Malaysian university students.

5. Recommendations

Based on the study findings, the researcher suggests the following recommendations:
1. Provide information on the level of internet addiction and psychological morbidity to the Faculty of Nursing-IUG.

2. Prepare detailed documentation on the findings of the study as baseline information for the next studies.

3. For further understanding of internet addiction, more studies are needed to explore its prevalence in different occupations and social groups.

4. The unique political, social and cultural attributes of Gaza-Palestine should be considered when planning any internet addiction and psychological morbidity reduction program.

5. Provide nursing students strong support facilities for counseling and recreational activities.

6. Conclusion

This study has provided useful information on nursing students' levels of their internet addiction by using the IAT inventory. The study identified high level of internet addiction. In the next future, a focus group discussion should be performed as a follow-up to explore further the actual causes of internet addiction. The recommendations arising from this study include the need for supportive environment and implementing interventions to deal with internet addiction and psychological morbidity among nursing students in Gaza.

7. Strengths and Limitations

One of the strength of the study was the inclusion of all nursing students at the Islamic University of Gaza. The current sample size (n= 236) resulted in sufficient power levels to allow readers to interpret findings with reasonable assurance that the outcomes have merit. The major limitation of the study is that survey research relies on self-report and voluntary responses. It is possible that those responding were the healthiest members of the overall sample.

Acknowledgements

References

[1] Alavi S, Maracy M, Jannatifard F, Eslami M, Haghighi M (2010). A Survey of Relationship between psychiatric symptoms and internet addiction in students of Isfahan universities, Scientific Journal of Hamadan University of Medical Sciences and Health Services; 17 (2): 57-65.

[2] 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.

[3] Bidi F, Namdari-Pejman M, Kareshki H, Ahmadnia H (2012). The Mediating role of metacognition in the relationship between internet addiction and general health, Addiction & Health; 4 (1-2): 49-56.

[4] Ceyhan A (2008). Predictors of problematic Internet use on Turkish university students, Cyberpsychology & Behavior; 11 (3): 363-6.

[5] Choi K, Son H, Park M, Han J, Kim K, Lee B, et al (2009). Internet overuse and excessive daytime sleepiness in adolescents, Psychiatry and Clinical Neurosciences; 63 (4): 455-62.

[6] Christakis D (2010). Internet addiction: A 21st century epidemic? BioMed Central Medicine; 8: 61.

[7] Christakis D, Moreno M, Jelenchick L, Myaing M, Zhou C (2011). Problematic internet usage in US college students: a pilot study, BioMed Central Medicine; 9:77.

[8] Deng Y, Hu M, Hu G, Wang L, Sun Z (2007). An investigation on the prevalence of internet addiction disorder in middle school students of Hunan province, Zhonghua Liu Xing Bing Xue Za Zhi; 28 (5): 445-8.

[9] Ferraro G, Caci B, D'Amico A, Di Blasi M (2007). Internet addiction disorder: An Italian study, Cyberpsychology & Behavior; 10 (2): 170-5.

[10] Fu K, Chan W, Wong P, Yip P (2010). Internet addiction: prevalence, discriminant validity and correlates among adolescents in Hong Kong, The British Journal of Psychiatry; 196 (6): 486-92.

[11] Gibbons C, Dempster M, Moutray M (2009). Surveying nursing students on their sources of stress: A validation study, Nurse Education Today; 29 (8): 867-872.

[12] Goldberg D (1992). General Health Questionnaire (GHQ-12), Windsor, UK: Nfer-Nelson.

[13] Ha J, Yoo H, Cho I, Chin B, Shin D, Kim J (2006). Psychiatric comorbidity assessed in Korean children and adolescents who screen positive for Internet addiction, Journal of Clinical Psychiatry; 67 (5): 821-826.

[14] Hawi N (2013). Arabic validation of the Internet Addiction Test, Cyberpsychology, Behavior, and Social Networking; 16 (3): 200-204.

[15] Iqbal M, Noor M, Miann A (2014). Analysis of internet addiction amongst university level students, VFAST Transactions on Software Engineering; 3 (2): 11-16.

[16] Kim K, Ryu E, Chon M, Yeun E, Choi S, Seo J, et al (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: a questionnaire survey, International Journal of Nursing Studies; 43 (2): 185-92.

[17] Kormas G, Critselis E, Janikian M, Kafetzis D, Tsitsika A (2011). Risk factors and psychosocial characteristics of potential problematic and problematic internet use among adolescents: A cross-sectional study, BioMed Central Public Health; 11: 595.

[18] Kutty N, Sreeramareddy C (2014). A cross-sectional online survey of compulsive internet use and mental health of young adults in Malaysia, Journal of Family and Community Medicine; 21 (1): 23-28.

[19] Lotfi M, Minian A, Ghomizadeh A, Nourani F (2010). A study on psychological health of first year university students in Iran, Iranian Journal of Psychiatry and Behavioral Sciences; 3 (2): 47-51.

[20] Muussesa L, Finkenauerb C, Kerkhofc P, Billedoc C (2014). A longitudinal study of the association between Compulsive Internet use and wellbeing, Computers in Human Behavior; 36: 21-28.

[21] Nasiri E, Raei M, Vatani J, Keshavarz S, Hashiani A (2011). Survey the Prevalence of Internet Addiction and Its Influential Factors in Persian College Student in 2011, Middle-East Journal of Scientific Research; 10 (1): 50-53.

[22] Papazisis G, Tsiga E, Papanikolaou N, Vlasiadis I, Sapountzi-Krepia D (2008). Psychological distress, anxiety and depression among nursing students in Greece, International Journal of Caring Sciences; 1 (1): 42-46.

[23] Petry N (2006). Internet gambling: an emerging concern in family practice medicine, Family Practice; 23 (4): 421-426.

[24] Pryjmachuk S, Richards D (2008). Predicting stress in pre-registration midwifery students attending a university in Northern England. Midwifery; 24 (1): 108-122.

[25] Tsai H, Cheng S, Yeh T, Shih C, Chen K, Yang Y, et al (2009). The risk factors of Internet addiction–a survey of university freshmen, Psychiatry Research; 167 (3): 294-9.

[26] Tsitsika A, Critselis E, Kormas G, Filippopoulou A, Tounissidou D, Freskou A, Spiliopoulou T, Louizou A, Konstantoulaki E, Kafetzis D (2009). Internet use and misuse: a multivariate regression analysis of the predictive factors of internet use among Greek adolescents, European Journal of Pediatrics; 168 (6): 655-65.

[27] Wang H, Zhou X, Lu C, Wu J, Deng X, Hong L (2011). Problematic Internet Use in High School Students in Guangdong Province, China, PLoS One; 6 (5): e19660.

[28] Widyanto L, McMurran M (2004). The psychometric properties of the internet addiction test, Cyberpsychology & Behavior; 7 (4): 443-50.

[29] Yoo Y, Cho O, Cha K (2013). Associations between overuse of the internet and mental health in adolescents, Nursing & Health Sciences; (In Press).

[30] Young K (2009). Internet addiction: The emergence of a new clinical disorder, Cyberpsychology & Behavior; 1 (3): 237-244.