Full Length Research

Internet Addiction among School going Adolescents in Pokhara, Western Nepal

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Internet addiction is growing as a major problem globally, especially among the adolescence and though it has many benefits it has also impacted on their psychological, social, academic, occupational and overall functioning, yet has been rarely explored adequately in developing countries. This descriptive cross-sectional study was conducted to assess the prevalence of internet addiction and its associated factors among adolescents in Pokhara-Lekhnath Metropolitan City, Western Nepal, using a local secondary school students as the study population. Non-probability, purposive sampling technique was adopted and the adolescents studying in grade 10 were selected as study sample with the sample size of 102.Data was collected using self-administered questionnaire, a standard tool i.e. Internet Addiction Test (IAT) was used. The findings showed greater proportions (64.7%) of adolescents had mild and 8.8% had moderate internet addiction even though there was no severe addiction this is very higher prevalence than reported by several studies in other countries. There was significant association of internet addiction with the purpose of internet use (p= 0.004).Accessibility and availability of Internet use is constantly growing in Nepal also. Hence, there is need to raise awareness about internet addiction among adolescents at school, family and community level in order to prevent future consequences.

Key Words: Internet addiction, Adolescent, School

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INTRODUCTION

Twenty first century is the world of technology and internet has grown leaps and bounds from the time of its origin to these days globally. Many people cannot imagine their life without internet as it is now taken as part of their everyday life. However, along with various benefits, it has dark sides also(Al-hantoushi & Al-Abdullateef, 201; Ač-Nikolić, Zarić & Nićiforović-Šurković, 2015; & Gholamian, Shahnazi & Hassanzadeh, 2017,). According to Internet Live Stats (2016),48.4% Asian population use internet which is the largest percentage than any other parts of the world and for Nepal it is 17.2% of the total population. As mentioned earlier, though internet has many benefits for people now, together with this internet brings risk like internet addiction (Sargin, 2012). As defined by Shahnaz & Karim (2014) & Shaw & Black(2008), internet addiction can be defined as an excessive or poorly controlled preoccupations, urges or behaviors regarding computer use and internet access which may have impact on individual's psychological, social, academic as well as occupational functioning. In

recent years, internet addiction is a problem among 'adolescents' (Kuss, Van Rooij, Shorter, Griffiths & van de, 2013) as it is the vulnerable where limits are tested and therein, the young ones are curious to learn about new things and get new experiences (Shrestha, 2013). The internet serves as a media for the exploration, so adolescents are increasingly using internet for social media, game, education, entertainment and for various other purposes (Koovakkai & Muhammad, 2010 &Hawi, 2012).

Several studies conducted in different parts of the world showed the varying level of prevalence of internet addiction among adolescents ranging from 3-39%. Among these studies, a study of Lebanon reported the highest prevalence (39.2% mild, 34.9% moderate and 4.2% severe) followed by Korea (30%), Jordan (28.8% mild and 6.6% severe), India (28.57%), Iran (27.6% mild and 2.9% severe),the least addiction was reported by a study in China (2.4%). Most of the studies showed that males happen to be the dominant sex among the distribution of adolescents who are addicted to internet(Cao, su,2007;Jang, Hwang & Choi, 2008; Siomos, Nikiforos & Angelopoulos, 2008; Moidfar & Gatabi, 2011; Shek & Yu, 2012; Hawi , 2012;Pontes, Griffiths & Patrao, 2014; Missaoui, Brahim, Bouriga & Abdelaziz, 2015; Ač-Nikolić, et. al., 2015;Sharma, et.al., 2016; & Gholamian, et. al., 2017).

The studies on prevalence and effect of internet use and internet addiction on adolescents has remarked various negative consequences on adolescents' life aspects as well as their physical, mental, social and intellectual health and development. A study in Tunisia revealed that adolescents with internet addiction were neglecting their household chores to get more time for on-line and they had sleep disorder too (Missaoui, Brahim, Bouriga & Abdelaziz, 2015). Another study in Saudi Arabia shows that internet addiction is associated with lower degree of school performance, absenteeism, more hours using internet every day, lower level of parental control, and higher level of depression (Al-Hantoushi & Al-Abdullateef, 2014). Pontes, Griffiths and Patrão (2014) also found the behavioral problem among those adolescents who were addicted to internet. A study in Thailand by Wanajak(2011) depicts physical health problems due to internet addiction, the study shows that health issues such as, eye strain (67.5%), back pain (37.3%), headache (34.06%), fatigue (23.72%), difficulty concentrating (13.1%), and stiff joints (11.9%). Similarly, emotional problems experienced were loss of track of time (23.3%), become preoccupied (14.7%), irritated (3.6%), anxious (2.6%), and sad feeling (0.8%).

Despites of the evidences from different parts of the world regarding the prevalence and impact of internet addiction among adolescents, there is paucity of such study in the context of Nepal. Nowadays, adolescents are being distracted and more focused towards internet rather than their academic work, Physical exercises/activities and social roles in Nepal too which may impose negative impacts in their life. Thus, the researcher felt the need to assess prevalence of internet addiction in adolescents group in selected school of Pokhara Lekhnath Metropolitan City.

DATA AND METHODS

Descriptive cross-sectional study design was adopted for the study. The study was conducted in Pokhara-Lekhnath Metropolitan City of Western Nepal. The study population was drawn from students studying in class 10 from both English and Nepali medium sections and they totaled 260. Non-probability, purposive sampling technique was used for inclusion of sample and sample size was 102.

The instrument for data collection was self-administered questionnaire which was divided in two parts: part I consisted the questions related to background information which was formulated on the basis of literature review and consultation with subject matter experts and part II was questions related to the internet addiction among adolescents (A standard tool i.e. Internet Addiction Test (IAT) which was developed by Dr. Kimberly Young, 1998).The Internet Addiction Test is the first validated and reliable measure of addictive use of the Internet. It is a 20-item 5-point linkert scale questionnaire that measures the severity of self-reported compulsive use of the internet. Total internet addiction scores are calculated, with possible scores for the sum of 20 items ranging from 20 to 100. The scale showed very good internal consistency, with an alpha coefficient of 0.93 in an Indian study. According to Young's criteria, total IAT scores 20-49 represent average users with mild addiction of their internet use, scores 50-79 represent moderate addiction caused by their internet use, and scores 80-100 represent internet addicts with significant problems caused by their internet use (Goel, Subramanyam & Kamath, 2013). Level of addiction for this study was also categorized in 4 levels: 0-19= minimal or no addiction, 20-49= mild addiction, 50-79= moderate addiction, 80-100= severe addiction.

Data was collected after getting approval from the Institutional research committee of T.U, I.O.M, Pokhara Campus. And formal permission was taken from principal of concerned school. Then schedule for data collection was prepared according to suitable time of students of respective school. The purpose of the study was explained to the respondents. Informed verbal and written consent were obtained from respondent prior to data collection. Anonymity was maintained by coding the questionnaire instead of name. Precautions were taken throughout the study in every step to safeguard the right and welfare of all respondents. The respondents were

TABLE 1. Background Information of the Respondents
n=102

Characteristics	Frequency (n)	Percentage (%)
Age (in years)		
10-14	33	32.35
15-19	69	67.65
Gender		
Male	47	46.08
Female	55	53.92
Type of family		
Nuclear	66	64.71
Joint	36	35.29
Family income		
Not sufficient to eat for 6 month	03	02.94
Sufficient to eat for 6 month	07	06.86
Sufficient to eat for 12 month	41	40.20
Extra saving	51	50.00
Father's education		
Illiterate	03	02.94
Can read and write	16	15.69
Primary	19	18.63
Secondary	36	35.29
Higher education	28	27.45
Mother's education		
Illiterate	07	06.86
Can read and write	22	21.57
Primary	25	24.51
Secondary	34	33.33
Higher education	14	13.73
Father's employment		
Unemployed	02	01.96
Service	34	33.33
Business/self-employed	41	40.20
Wage earner/labor	07	06.87
Farmer	11	10.78
Others	07	06.86
Mother's employment		
Unemployed	32	31.37
Service	20	19.61
Business/self-employed	25	24.51
Wage earner/labor	02	01.96
Farmer	15	14.71
Others	08	07.84

given full authority to withdraw their participation without any fear or clarification at any time during the investigation. Collected information were kept confidential and information were used only for study purposes. The questions were clearly read out and explained by the researcher to make it clear and easy for the respondents as well as for the completeness.

Collected data was checked, reviewed, organized daily for completeness and accuracy. Data was analyzed in Statistical Package for Social Science (SPSS) version 16. Descriptive statistics (frequency, percentage, mean and standard deviation) was used to describe the findings and inferential statistics (chi-square test) was computed to see the association between variables. The result was considered significant at 95% confidence interval with p value ≤ 0.05.

TABLE 2. Prevalence of Internet Addiction
n=102

Characteristics	Frequency (n)	Percentage (%)
Internet addiction		
Minimal or no addiction	27	26.50
Mild addiction	66	64.70
Moderate addiction	9	8.80

TABLE 3. Use of internet among adolescents
n=102

Characteristics	Frequency (n)	Percentage (%)
Device use for internet connection		
Mobile	86	70.50
Laptop	12	09.80
I-pad/tablet	18	14.80
Desktop computer	06	04.90
Purpose for using the internet		
Entertainment	13	12.75
Social networking/communication	28	27.45
Acquiring knowledge	60	58.82
Others	01	00.98
Most frequently visited website		
Youtube	26	25.50
Facebook	38	37.25
Google	34	33.33
Others	04	03.92
Duration of internet use per day		
<1 hour	55	53.92
1 hour-2 hour	31	30.39
2 hour-3 hour	13	12.75
>3 hours	03	02.94
Time for using the internet		
Morning	04	03.92
Afternoon	03	02.94
Evening	57	55.88
Night	38	37.26

RESULTS AND DISCUSSION

The study found that greater proportion (67.6%) of internet using adolescents were from 15 to 19 years of age group and more than half of them were females. Nearly 65% were from nuclear family. Greater percentage of adolescents had their father and mother attended secondary level education (35.29%, 33.33% respectively). Nearly half of the adolescents had their father employed in business/ self- employed while most of the mothers were unemployed (40.2% & 31.37% respectively)(Table 1).

In regard to prevalence of internet addiction, the study found that the greater percentage (64.7%) of adolescents had mild internet addiction and 8.8% had moderate but no severe addiction. However, this finding is higher than the findings of other studies even though the percentage of moderate addiction is low and no severe addiction(Cao & Su,2007; Jang, Hwang & Choi, 2008; Siomos, et. al., 2008; Moidfar & Gatabi, 2011; Shek & Yu, 2012; Hawi , 2012; Pontes, et. al., 2014; Missaoui, et. al., 2015; Ač-Nikolić, et. al., 2015; Sharma, et. al., 2016 & Gholamian, et. al., 2017)(Table 2).

This study showed that majority (70.5%) of the adolescents use mobile Phone to use internet. Nearly 59% of the adolescents used internet for the purpose of acquiring knowledge. Similar study conducted in Turkey also reported higher percentage (71.2%) of adolescents

TABLE 4. Association between use of internet and Internet Addiction
n=102

Characteristis	Internt Addiction Level		χ^2	p-value
	No addiction	Addiction		
Purpose of use				
Acquiring knowledge	22(36.7%)	38(63.3%)	7.783	0.004*
Others	5(11.9%)	37(88.1%)		
Most frequently visited website				
Facebook	7(18.4%)	31(81.6%)	2.016	0.156
Others	20(31.3%)	44(68.8%)		
Duration of internet use				
<2 hour	25(29.1%)	61(70.9%)	1.903	0.168
>2hour	2(12.5%)	14(87.5%)		

CI: Confidence interval; Test statistics: Chi-square(χ^2) and *p –value significant at ≤ 0.05 level

TABLE 5. Association between Background Variables and Internet Addiction
n=102

Characteristics	Internt Addiction Level		χ^2	p-value
	No addiction	Addiction		
Age				
10-14 years	10(30.3%)	23(69.7%)	0.368	0.544
15-19 years	17(24.6%)	52(75.4%)		
Gender				
Male	11(23.4%)	36(76.6%)	0.421	0.516
Female	16(29.1%)	39(70.9%)		
Type of family				
Nuclear	18(27.3%)	48(72.7%)	0.062	0.804
Joint	9(25%)	27(75%)		
Family income				
Not sufficient	3(30%)	7(70%)	0.069	0.792
Sufficient	24(26.1%)	68(73.9%)		
father's education				
Illiterate	3(16.7%)	15(83.3%)	1.167	0.280
Literate	24(28.6%)	60(71.4%)		
Mother's education				
Illiterate	7(24.1%)	22(75.9%)	0.113	0.736
Literate	20(27.4%)	53(72.6%)		
Father's occupation				
Currently not working	1(50%)	1(50%)	0.709	0.434
Currently working	18(24%)	57(76%)		
Mother's occupation				
Currently not working	8(25%)	24(75%)	1.063	0.302
Currently working	7(15.6%)	38(84.4%)		

CI: Confidence interval; Test statistics: Chi-square(χ^2) and; *p –value significant at ≤ 0.05 level

used internet for education, homework, obtaining information followed by entertainment, gaming and chatting (Çiçekoğlu, Durualp & Durualp, 2014). But in contrast to this, an Indian study reported that majority (69.85%) of adolescents used internet for social network followed by for academic purpose (9.8%), downloading media files (8.14%), gaming (6.42%), online shopping (4.57%), pornography (0.71%) (Sharma, Gupta, Gunjan, Sharma, Sharma & Sharma, 2016). Higher proportions (38%) of the respondents use internet for Facebook. Similar to this, Sharma, et.al. (2016) in India also found greater proportion of adolescents used Facebook (48.71%) followed by WhatsApp (14.71%), Google (14.28%). Ač-Nikolić,et. al. (2015) also found similar to this in Serbia. We found 53.92% of adolescents use internet for less than one hour and the most common

time for use was in the evening (55.88%), which corroborates the findings in Turkey where 63.3% used the internet for less than one hour a day (Çiçekoğlu, et.al., 2014) *(Table 3)*.

The present study reveals that the purpose of internet use was significantly associated with internet addiction and this affirms with the findings by Sharma et.al. (2016) in India *(Table 4)*. However, this study showed no any association of internet addiction with selected background variables (age, gender, types of family, parent's income, father's education, mother's education, father's occupation, mother's occupation), which is consistent with other studies (Ač-Nikolić, et. al., 2015; & Shek & Yu, 2012). Al-hantoushiand Al-Abdullateef (2014) also showed the similar result as there was no significant relationship between variables (age, family economic status) with internet addiction. However, the result contradicts with the findings by Sargin (2012), which showed significant association of internet addiction with age of the respondent *(Table 5)*.

CONCLUSION

On the basis of the findings, this study concludes that greater proportions of adolescents attending secondary level education had mild level internet addiction even though there was no severe addiction this is very higher finding than several studies in other countries. The purpose of internet use was significantly associated with internet addiction. On this ground it is understood that though internet has become one of the most significant information resources for adolescents, unfortunately, the sizable adolescent population has the problem of addiction. Therefore family, community and school focused awareness programs to reduce the burden of internet addiction among adolescents in Pokhara seems an imperative intervention. So the results of this study posed the needs for inclusion of information about internet addiction in student's textbook and parent-teacher-student meetings on regular basis to discuss about internet addiction and its effects. Lastly, future research could be conducted with various methods of inquiry as well as to a wider scale of population with some additional factors, such as the impact on personal development, academic achievement and other aspects of life.

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