Prevalence of online game addiction among teenagers

Shanti Bhandari, Deepak Belbase, Jeewa Pokhrel and Pratikshya Gyawali

Abstract

Background: In human history, the activity of play has ever present from very early childhood. Playing games is a way of relaxation to step out from our daily routine. In recent decades, use of the internet has become a part of modern daily life. Adolescents are encouraged to utilize the internet to enhance school performance and competitiveness however; heavy use has several negative consequences.

Methodology: A descriptive cross sectional study was conducted among the adolescents’ aged between 15-20 years and samples were taken by using two stage cluster sampling. In first stage, schools were randomly selected, in the second stage classes from the selected schools were again selected randomly and then total numbers of students from the selected class were sampled using semi-structured self administered questionnaires.

Results: A total of 267 out of 279 questionnaire forms were analyzed, 12 forms were rejected because of being incompletely filled. Out of the 267 students 61.8% were male. Mean age of students was 17.02±0.77 years. Males were more addicted to online games than females. The mean time spent on internet was 2.56±1.011 hours per day. The Problematic Internet Use Questionnaire (PIUQ) revealed that 55.8% as normal users and 44.2% as addicted users to online games.

Conclusion: Online game addiction/Internet addiction is growing problem among students which has psychological, physical, and social impact on student’s life. So it is necessary to develop strategies for prevention of internet addiction which is vital for promoting healthy and safe use of the Internet. Awareness should be created among the students to improve ability to reduce the occurrence of internet addiction behavior promoting their healthy growth.

Keywords: Prevalence, Online game addiction, Teenagers

Introduction

In human history, the activity of play has ever present from very early childhood. Playing games is a way of relaxation to step out from our daily routine. In recent decades, Internet use has become a part of modern daily life [1]. Internet addiction is one of the most serious problems. Adolescents who are addicted to the Internet also usually suffer from problems in their daily routine, school performance, family relationships, and mood. Aggressive traits may also impact online gaming [2, 3]. Most of the research to date, most of the research on adolescent computer game playing has tended to concentrate on the more negative aspects such as excessive play and addiction, the effects of playing aggressive games and the medical and psychosocial consequences [4]. The common characteristic of MMORPGs (Massively multiplayer online role playing games) is that in virtual communities players can assume any role they desire, collaborate with other players in the game to succeed in even more complex goals and accomplish missions of a fairly aggressive nature. Players have the power to talk online, make friends and conduct transactions involving real or virtual assets. The entertaining, interactive and real time online games have become “killer applications” on the Internet, and these are the primary reasons some teenagers spend hours every day playing these games [5].

Materials and method

The present study was designed to find out current situation of online game addiction among teenagers. Ethical clearance was obtained from the institutional ethical committee of institute before commencement of study. Descriptive cross sectional study design was used among 267 teenagers of class 12 of different colleges of Butwal-8, Sukkhanagar. Two stage cluster sampling technique was used to select the sample. First of all list of total number of schools in Butwal-8, sukkanagar was obtained from district education office. In first stage, schools were randomly selected, in the second stage classes from the selected schools were selected.
randomly and then total numbers of students from the selected class were sampled which was calculated by using formula \( n = Z^2 \frac{pq}{d^2} \). A semi-structured self administered questionnaire was used to collect data for the quantitative data collection.

**Results**

**Table 1: Prevalence level of online game addiction among teenagers**

<table>
<thead>
<tr>
<th>Prevalence level</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 30 or equal to 30 (Normal)</td>
<td>149</td>
<td>55.8</td>
</tr>
<tr>
<td>more than 30 (Addicted)</td>
<td>118</td>
<td>44.2</td>
</tr>
<tr>
<td>Mean = 30.01(±5.6) hours</td>
<td></td>
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The above table of Prevalence level of Online Game Addiction among teenagers reveals that 55.8% of the respondents had normal range of prevalence level of online game addiction where 44.2% were found to be highly addicted to online games.

**Discussion**

**Prevalence of Online Game Addiction**

In our study the prevalence of online game addiction was found to be 44.2%. This study reveals that prevalence of online game addiction/internet users is increasing rapidly in our country and is following the global trend of change. The prevalence of online game addiction has varied among different countries. IA prevalence is inversely associated with the quality of life, as reflected by both subjective (life satisfaction) and objective (quality of environmental conditions) indicators [7]. It ranges from 1.3% of severe internet addiction, among students of Nepal [8], the male students were observed to be more addicted to Internet than the female students with 0.3% of severely addicted to internet whereas a study conducted in India [9], 4.3% showed internet addiction adolescents of UK [10] and 17.7% internet addiction among Taiwanese adolescents [9]. Also, the most frequent type of Internet use is online games, representing 50.9% of Internet users, and information services, representing 46.8% among Greek adolescent's students [13]. 70.5% of Turkish adolescents use internet for playing games only [13]. 24.2% of Finnish adolescents were found to be categorized under serious over users of internet [12].

Meta-analysis of 31 Nations showed the global prevalence estimate of 6.0% in which highest prevalence was in the middle-east with 10.9% and the lowest prevalence was in northern and Western Europe i.e. 2.6% [8]; this variation in results may be due to the increased accessibility of internet through smart phones.

**Online game addiction and other socio-demographic variable**

The mean age in this study was 17.02 (± 0.77) years and there was no significant difference in internet addiction between different age groups. The study of Central India reported mean age 19.02 years and also reported no significant difference in internet addiction between different ages. Studies have found that the Internet addiction usually manifests itself in the late 20s or early 30s [9]. The study conducted in China revealed the mean age 13.78 ± 2.43 (Min: 10 - Max: 19) [12]. Our study revealed that more male adolescents had played online games and that online gaming addiction is more likely among males than among females, which is consistent with the findings of the study conducted in Taiwan [1], Turkey [13] and Finland [12]. Internet addiction was higher among males than females (30.6% versus 21.2%) [12].

The other socio-demographic variables like caste, religion, mother and father education, mother and father occupation was not found significant and the result was not consistent with studies conducted in other countries as our culture, tradition do not match with the cultures of other countries [4].

**Online game addiction and internet usage**

In this study, the mean time spent on internet was 2.56 (±1.01) hours per day, with more than thirty percent of sample (31.8%) spending 3-4 hours per day on internet. The study of Central India revealed mean time spent on internet was 1.29 (±1.251) hours per day, with more than sixty percent of sample (65.7%) spending <2 hours per day on internet [8]. Another study in India found the average time spent in Internet use was 2.13 hours (SD 1.98) everyday, more than half (56.73%) of the sample was using Internet at least for 2 h/day [15]. Teenagers use the Internet generally for entertainment and communication. In this study, the most preferred aim was playing games, followed by chatting and other activities. Some countries’ findings are similar to ours, but some are not. Yang reported that the computer is used mainly for games (70.5%), followed by chatting (11.6%), among the Korean youths [10]. Among Chinese adolescents internet gaming was found to be 73.42% [13].

**Conclusion**

The study reveals that nearly half of the respondents were highly addicted to online game addiction where more than half were recognized as normal. Online game addiction/Internet addiction is developing as emerging problem in Nepal and is following global trend. In order to address these emerging issue proper prompt and appropriate interventions should be taken and a governing body should be established to forestall possible impact of online game addiction/ Internet addiction on students. According to the research on "Sleep quality, internet addiction and depressive symptoms among undergraduate students in Nepal", about 35% of the students were found to be addicted to the internet.

The rates of Internet Addiction varied by different factor such as age, gender, school situation suggesting these factors should be considered when designing and implementing interventions. Similarly, as a prevention strategies school and college based activities involving education and sensitization of the students as well as teachers, in order to detect the symptoms of Problematic Internet Use need to be carried out.

**References**

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