

EFFECT OF EXCESSIVE ONLINE GAMING ON THE AGGRESSION, DEPRESSION, AND SUICIDAL IDEATION OF SENIOR SECONDARY SCHOOLSTUDENTS OF ASSAM

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ABSTRACT

This study aimed at investigating the effect of excessive online gaming with aggression, depression and suicidal ideation of senior secondary school students of Assam. Data was obtained from 1250 senior secondary students, between the age ranges of 16-18 years, from various schools of Assam. Two groups of students were formed: the experimental group (N=625) had students who were into playing excessive online games; and the control group (N=625) had students not into playing excessive online game. Game Addiction Scale, Buss-Perry Aggression scale, Beck Depression Inventory and Columbia- Suicide Severity Rating Scale were used to obtain the data. The statistical analysis of data revealed comparatively significant level of aggression, depression and suicidal ideation among students who were involved in excessive online gaming than the students who were not, suggesting the need for controlling students' excessive involvement in online gaming culture.

Keywords-Online gaming, Aggression, Depression, Suicidal ideation, senior secondary, students.

INTRODUCTION

The newer electronic media has given adolescents more diverse forms of visually stimulating content than ever before (Donnerstein, 2017), and it gets compounded with the access to internet, leading to online gaming culture for many adolescents. The American Psychological Association's Diagnostic and Statistical Manual has defined excessive online gaming as continuous use and repetition of interactions, usually with different players in real or virtual world, lasting up to 12 months, and are accompanied by severe clinical deterioration or pain. Majority of adolescents these days have become involved with online virtual communities (groups, tribes, guilds) and tend to play online games on a daily basis with people they have never seen in 'real' life. A large number of online games provide a virtual environment in which they can have fun and can freely experiment with different identities, speak other languages, and can simultaneously form new social connections. Due to such perceived benefits adolescents may get into excessive use of or addiction to online games. On February 12, 2009 the first-ever "World Gaming Day", which was marketed as "the largest-everyouth connect initiative to celebrate gaming" by its organizers Sony Ericsson, Microsoft XBOX 36, and Zapak.com, was celebrated in Mumbai (India times, 2009). The event culminated into four weeks of international gaming activities.

Online games can be addictive or could be played excessively to an extent lower than addiction but significantly higher than a normal behaviour. The second case is the case of excessive online gaming, which could become an addiction later on. For most of the adolescents, gaming is a pleasurable pastime activity. However, research has suggested that excessive online gaming may in the extreme cases lead to symptoms commonly experienced by substance addicts, namely craving, salience, mood modification, and intolerance (Kuss & Griffiths, 2012). Furthermore, it has also been argued that because of the 24/7 nature and almost binding excessive play required in playing online games (such as World of Warcraft and Everquest), online gaming may be more problematic for 'at risk' individuals than offline gaming (Griffiths, 2009). Adolescents may also use online games as a way of coping with stressors, and gaming can thus become a dysfunctional media-focused coping strategy (Thalemann, 2009). Similarly, relationships between problematic gaming and the ways in which adolescents cope with stress and frustration have also been reported (Wolfling, Thalemann,

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&Grusser, 2008). Adolescents aged 17-19 years treated for their excessiveonline gaming and pathological gambling at the Outpatient Clinic for Gaming Addictions in Mainz, Germany, have been found to suffer from anxiety, depressive symptoms, and somatization (Wolfling & Muller, 2009). The world's first video game addiction clinic opened in Amsterdam in July 2006. Since then various other countries like the United States, Canada, China, and Korea have also opened treatment centers.

Active media research using surveys has shown that there exists a small but consistent correlation between playing violent online games and aggressive behaviours in the 'real world'. Other experimental studies, which have tested gamers immediately after a game-playing session, have suggested that those who play violent games generally show higher levels of aggressive behaviour, have more aggressive thoughts, feel more aggressive and less empathetic and are less helpful, as compared with those who played non-violent games. Active media researchers have claimed that the combined analysis (meta-analysis) of 136 of these studies has provided evidence that violent online games are a causal risk factor for increased aggressive behaviour(Anderson et al., 2010).In relation to dispositional factors, research studies have discerned a range of factors associated with increased risk of online gaming, including trait anxiety (Rehbain, Kleimann, Moble, 2010), neuroticism (Mehroof& Griffiths, 2010), low self-esteem (Colwell & Payne, 2000), sensation seeking (Lin & Tsai, 2002), and depression (Ng & Weimer-Hastings, 2005).Studies investigating mood, affect, and even behavioural change, such as influence of video games on aggressiveness and hostility, have been numerous. American Psychological Association already had issued a resolution on violence in videogames and interactive media (Williams &Skoric, 2005), recognizing multiple negative effects of these media on players, especially the younger ones. This was a very significant issue, since in 2001, 64% of video games rated "suitable for everyone" had intentional violence (Thompson &Hanninger, 2001).

These days the number of games depicting suicide in content has increased. Such as suchas BlueWhale games, Pub-Ghasled and Mariam games, and death of packman in every game, might be effecting the subliminal perception of users. So many unpublished and unacknowledged real life incidents have been there, such as an 8thstandard school boy from Odisha's Keonjhar district who committed suicide over video game curbs in October, 2020, who spent around Rs. 91,000/- for playing 'free flies'; an 18 yearsboy from Taiwan who died in a web café after constantly gaming for forty hours non-stop; a 17 years Philippine boy who murdered his sixty eight years grandmother for interrupting his sport in neighbourhood net café; and the death and suicide rates that sparked after BlueWhale challenge; the list is endless. However, the positive feelings associated with playing video game, and simultaneously fewer opportunities to engage with others in the real world, can foster the belief that video game offers the best place available to the player. An individual who spends all of the available time involved in a video game may find it hard to relatesocially to others who do not play that video game. Disengagement from the video game tends to create negative mood states that confirm the expectation that time spent away from the game is unpleasant or unrewarding..

HYPOTHESES

H1-There will be significant differences in the aggression levels of senior secondarystudents of Assam who do excessive online gaming with those who don't.

H2-There will be significant differences in the depression levels of senior secondarystudents of Assam who do excessive online gaming with those who don't.

H3- There will be significant differences in the suicidal ideation of senior secondarystudents of Assam who do excessive online gaming with those who don't.

METHODOLOGY

Sample: The sample for this study constituted of senior secondary students (age range 16-18 years) from various schools of Assam. All students belonged from middle to upper socio-economic families and were familiar with reading and answering for English language.

Tools Used: Following tools were used in thisinvestigation:

Game Addiction Scale- the 7- item Game Addiction Scale (GAS) is a brief instrument based on DSM criteria to access problematic gaming. The scale was developed byLemmens, Valkenburg and

Peter in 2009 specifically to access gaming among adolescents. It measures 7 underlying criteria i.e. salience, tolerance, mood modification, relapse, withdrawal, conflict and problems. The scale is based on 5-point likertscale. Lemmens et.al suggested two formats for assessment of presence of game: a monothetic format (all scores items scoring above 3) and a polythetic format (at least half of the items scoring above 3). However he hypothesis that the monothetic format would lead a better estimate of prevalence of addiction than the polythetic format would. The internal consistency of the scale is satisfactory (Cronbach's α - 0.85) and it showed good concurrent validity across samples, as indicated by the consistent correlation with usage, loneliness, life satisfaction, social competence and aggression.

Columbia - Suicide Severity Rating Scale- the C- SSRS is used to measure, identify or assess individuals at risk for suicide. This scale is based on The Columbia Suicide History Form, developed by John Mann and Maria Oquendo on 2003. In the scale the questioned are phrased for use of interview format but can also be use as a self-report measure.The scale allows clinicians and researchers to access the severity and lethality of suicidal behaviour and ideation.C-SSRS showed high internal reliability (α =0.73- 0.95). The scale demonstrated good convergent validity (r = 0.80) with other multi-informant suicidal ideation and behaviour scales and high sensitivity and specificity for suicidal behaviour classification.

Beck Depression Inventory- The Beck Depression Inventory (BDI) has been developed by AronBeck (1961). BDI is a self-report rating inventory with a series of question developed to measure the intensity, severity and depth of depression. It is composed of 21 questions, with four-point assessing scale each designed to assess a specific symptom common among people with depression. Items were rated from 0- 3 scores, from which the subject need to select one score which defines them. The BDI have high internal consistency range from .73 - .92 with mean of .86. have high construct validity of .02 and criterion validity is of r = 0.71 with test-retest reliability of r = 0.93.

Buss- Perry Aggression Question – BPAQ is a 5 point scale questionnaire having 29 items was developed by Arnold H Buss and Mark Perry in 1992 to measure the level of aggression. It is subdivided into 4 factors- 1.Physicalaggression (9 items) 2. Verbal aggression (5 items) 3. Anger(8 items) and 4. Hostility (8items).It is a self-report measure of aggression.. Responses are made on a five-point Likert scale. This version has been reported to have adequate reliability and validity in Chinese samples (Liu, Zhu, & Gu, 2009). The internal consistency of this scale isalso high (Cronbach's α = .84).

PROCEDURE: The study started with collecting data from a large number of senior secondary students of Assam. Once the data was collected from 1250 students, the entire sample was divided into two groups. Those with higher scores on Game Addiction Scale were formed as Experimental Group (N=625). This group was considered as the one into excessive online gaming, since only few were completely on the addiction side, most of them just had a high score. Remaining other had lower scores on this scale and was constituted as control group (N=625). Both groups were administered the before-mentioned measures of aggression, depression and suicidal ideation. The obtained data was subjected to suitable statistical analysis.

RESULTSAND DISCUSSION

Independent sample t-test was used to determine the difference of two groups by comparing their mean scores of the variables (aggression, depression and suicidal ideation).

Table 1
t-test for aggression, depression and suicidal ideation

Variable	Type of group	N	Mean	t	Sig.
Aggression	Experimental	625	125.56	19.446**	.002
	Control	625	74.72		
Depression	Experimental	625	40.20	8.098**	.000
	Control	625	20.12		
Suicidal	Experimental	625	19.48	3.702**	.000

Ideation	Control	625	8.17		
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The analysis of data clearly revealed significant differences in the aggression ($p<0.05$), depression ($p<0.05$) and suicidal ideation ($p<0.05$) of both groups suggesting the acceptance of all three hypotheses of study i.e. there are significant differences in the aggression, depression and suicidal ideation of secondary school students of Assam who are into excessive online gaming with those who are not. The mean scores suggest excessive gamers to have high aggression score ($=125.56$), depression scores ($=40.20$) and suicidal ideation scores ($=19.48$) than the control group. This clearly suggests that excessive online gaming could be leading to aggression, depression and suicidal ideation in the secondary school students of Assam. Previous research is also supporting the results of this study. Van Rooij and colleagues (2009) found that there is a positive correlation between online games and aggression. Darabi(2020)conducted another study on the variables of aggression and online gaming in the Indian population. The results of this study produced a fascinating profile that revealed certain psychological characteristics such as aggression and hyperactivity as positively correlated with online games, because aggressiveness can directly affect the effects of violent games that encourage negative topics, as well as impulsivity, anti-social behavior, and abuse. Environmental factors may also lead to aggressive factors in the game. Teenagers who play online games tend to be more depressed than those who are not. However, it is said that people tend to play online games to cope with emotional stress, but excessive gambling can sometimes be an indicator of depression. In another study (Wang, Sheng &Wang, 2019) a positive correlation between mobile phone gaming addiction and depression was found. Yang, Xin, Liu and Boke (2020)have found suicidal thoughts and ideation to be positively correlated with excessive online gaming.

Overall the results of this study suggested significant adverse consequences for the senior secondary school students of Assam. The age when students should be concerned with their identities and careers, the advent of online gaming culture has immersed these students into some virtual world. And the irony is the acceptance of society with excessive gaming of students. The study attempted to highlight the vulnerability of senior secondary students of Assam towards psychological distress due to excessive gaming. It might also provide insight to at least a few from the gaming industry to be cautious about the type of game they are releasing which could hamper individuals in many ways. Assam with rich cultural and natural diversity, might be giving an impression to rest of the world that it is not much touched by the adversities of technology. But internet has no boundaries and the Assamese students have all the un-cut access to the world of online games. The need is to spread awareness to all parts of India and world, about the consequences of this online gaming culture, and the need to construct interventions for the victims. The study was one such attempt.

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