

Gaming addiction to Massively Multiplayer Online Games (MMOGs) and Quality of Life

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Abstract

Context: Massively Multiplayer Online Games (MMOGs) are three dimensional games played on personal computers, mobile phones & video games. Millions of people of all ages worldwide participate in gaming and it has become most popular leisure activity for them which sometimes appear to develop problems as a result of excessive gaming, most commonly among young adults/young adults/ students. **Aim:** The aim is to assess the relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and quality of life among young adults. **Setting and Design:** Data collection for the present study was conducted at Private University of Punjab, India in April, 2019. A quantitative research approach with descriptive research design was adopted to assess the relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and quality of life among young adults. **Subjects and Methods:** By purposive sampling technique, 100 samples (18-21yrs) meeting the inclusion and exclusion criteria were selected. **Statistical analysis used:** Descriptive and inferential statistics were used. **Results:** Findings of the study revealed that 61% young adults/ students were non addicted and 39% were addicted to gaming and quality of life was good among addicted and non addicted young adults/ students & there is no significant relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and Quality of life at $p < 0.05$.

Conclusion: MMOGs can improve quality of life and playing these online games for long hours may have long term ill effects on various components of health.

Keywords: Gaming addiction, Massively Multiplayer Online Games (MMOGs), Quality of life.

Introduction

Online gaming has been renowned among public due to the betterment in the internet and computer Technology. These online games has gain popularity among young generation at a very fast rate and changed from single user to multiuser or Massively Multiplayer

Online Games (MMOGs) in which number of players are there to play the game at same time.^[12] We cannot turn a blind eye to the ill effects of online gaming as youngsters are mainly involved than the older ones. Researchers claimed that video games are the integral part in this era of computer revolution¹. Massively Multiplayer Online Games (MMOGs) are virtual three-dimensional fantasy games in which people compete with each other and with the computer-generated characters of the particular game world. People used to play these online games on their personal computers, smart phones and video gaming consoles are also a part of this.² Researches shows that gaming has positive as well as negative effect on health such as it improves cognitive functions, improves mood

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and ward off anxiety and negative effects includes poor academic performance, adverse effects on health and addiction to gaming in youth.³ According to WHO (World Health Organization), Quality Of Life (QOL) is defined as an individual's own awareness in their life related to culture and value system in which they live to fulfil their aims, concerns and standards. It is a broad term for various important realm of life. It is intuitive concept having various areas/ dimensions that defines a set standard level for emotional, physical, material and social well being. So this act as a remark about an individual's or about a society that they can compute the various domains of their life.^{4,5} Undoubtedly such games are a big source of endless entertainment but they also affect the life of people playing these games on regular basis, both in positive and negative aspects. A great number of scientists and psychologists have claimed that these video games have many advantages and the important and main is that it is making people astute. According to a Psychologist in University of Wisconsin (C. Shawn Green), "Video games change our brain". Because playing these games help us in recasting of our brain physiological structure in same way as it is recasted during reading, navigating, playing a piano.⁶

In India, most of the gamers are reported to play for more than ten hours straight, and go to sleep without showing any visible signs of their general health being affected, but other players abandon their basic body requirements. They are reported to have lack of personal hygiene, lack of proper nutrition, lack of exercise, and lack of sleep also. In worst case scenarios, people have played these games for so long that they developed deep vein thrombosis (a blood clot) which further resulted as heart attack in them and ultimately death & also affecting their overall health and thus quality of life.⁷

In this modern era we cannot ignore the ill effects of computers on our physical and psychological health. Most of the time the young generation is seen to be more engaged than the older ones with computers. Researchers also said that the development in modern technology is due to computer revolution and computer games are important and integral key aspect of them.^{8,9}

Now days living an ordinary life is not commendatory, but revamping the quality of our living is more recommended and people pay more prominence

in improving their life quality wise and consider this as a fundamental goal. This is one of the important and considered as a key indicator since it includes different domains like Physical Health, Psychological, Social relationships and Environment. So basically computing quality of life will help us to identify the societal needs, adjustment programs and budgets. Today, Massively Multiplayer Online Games have become very prevalent among people of different age groups especially adolescents and young adults. Gaming is one the fastest growing and the most economic industry these days. According to a survey conducted by statista.com, it has been found that the total number of online gamers worldwide has massively increased from 1.6 billion in 2014 to 2.2 billion in 2018. They have also estimated an increase of up to 2.6 billion by the year 2021.^{10, 11, 12}

Previous studies on gaming addiction to MMOGs and its relationship with quality of life have concluded that addiction to such games has various ill-effects on overall health and is progressively worsening the quality of life of the gamers. Moreover, since India is a country where the rate of playing MMOGs is increasing significantly in young adults and adolescents as it is becoming their favourite leisure activity and many of the youngsters keep themselves busy and diverted due to this. There were very few researches found on this topic and the objective of this study is to find out the level of addiction to MMOGs among young adults and its relationship to the quality of life. No doubt is there that playing this for shorter duration will relax your mind and boost your mood but excess of this can cause serious ill effects on your health. We have studied the published literature regarding this topic and to determine the impact of playing MMOGs upon the quality of life of emerging adults, and young adults particularly at our college level and to critically appraise the evidence was main aim of the study.

Subjects and Methods

Study Setting & Samples

The present research was conducted in private university of Punjab India. Subjects were taken from various departments of the university who used to play

these MMOGS from more than 6 months and falls under the age of 21years. Only those young adults/ students were considered for participation who were interested to take part in study and all provided written consent before that.

Assessment Instruments

In present study, two tools were used, one was Gaming Addiction Scale (GAS) by Lemmens, Valkenberg and Peter to find out the gaming addiction among young adults which consists of total 7 questions and each is measured on a 5 point Likert scale. These seven questions consists of seven criterias of computer addiction such as Salienc, Tolerance, Mood modification, Relapse, Withdrawl, Conflict and Problems and if 4 or more criterias are met in a person then the person is diagnosed as addicted (given in DSM section on Gambling). The second tool used was WHO- QOL BREF (World Health Organisation- Quality of Life) Questionnaire which checked the quality of life among these addicted and non addicted diagnosed subjects and this tool consists of total 26 questions sub divided into four domains such as Physical Health contains seven questions about physical

health, Psychological Domain contains six questions, Social relationships Domain consists three questions and Environment domain consists 8 questions respectively and two were general questions not considered under any domain with Maximum Score=108 Minimum Score=36.

Study Design & Data Collection

Descriptive research design was used to assess the relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and Quality Of Life (QOL) among young adults/ students and quantitatively, data was collected and converted into numerical form to make statistical calculations & reveal results. Non-Probability Purposive sampling technique was used to draw 100 samples from the population after fulfilling the inclusion and exclusion criteria, subjects were provided with Gaming Addiction Scale (GAS) to find out the gaming addiction and WHO QOL BREF (World Health Organisation Quality of Life) Questionnaire was used to check the quality of life among them. Nature and purpose of the study was explained to the young adults/ students and informed consent was taken from them.

Results

Table no. 1: Frequency and Percentage distribution of gaming addiction to Massively Multiplayer Online Games (MMOGs)

N=100

S.No.	Gaming Addiction Criteria (DSM)	Gaming Addiction Scoring	f (%)	Mean	SD
1	Addicted	4 or >4	39 (39%)	4.95	0.82
2	Non-addicted	<4	61 (61%)	1.70	1.10

Maximum=7 Minimum=0

Table 1 depicted that majority of the population (61%) was not addicted to Massively Multiplayer Online Games (MMOGs).

Table no. 2 : Frequency and percentage distribution of Quality of life among Addicted and Non Addicted young adults/ students.

N = 100

S.No.	Category Score	Addicted (n = 39)	Non Addicted (n= 61)
		f (%)	f (%)
1	EXCELLENT (93-108)	02 (5%)	0
2	VERY GOOD (79-92)	10(26%)	16 (26%)
3	GOOD (65-78)	26 (67%)	42(69%)
4	AVERAGE (51-64)	01 (2%)	02(3%)
5	POOR (50-36)	0	01(2%)
	Maximum Score=108 Minimum Score=36		

Table 2 showed that majority of the Non Addicted young adults/ students (69%) had good level of quality of life.

Table no. 3: Domain wise Mean and SD of Quality of life among addicted and non-addicted young adults/ students.

N=100

DOMAINS	Mean		SD	
	Addicted (n=39)	Non-addicted (n=61)	Addicted (n=39)	Non-addicted (n=61)
Domain 1 (Physical)	22.56	22.18	3.23	3.51
Domain 2 (Psychological)	19.15	19	3.66	3.61
Domain 3 (Social Relationships)	9.83	9.98	2.41	2.89
Domain 4 (Environment)	25.17	23.91	4.50	4.46

Table 3 depicted that among the addicted young adults/ students, the most affected domain was Environment domain with the highest mean score (25.17) and SD (4.50). Among non-addicted young adults/ students the most affected domain was Environment domain with the highest mean score (23.91) and SD (4.46).

Table no.4: Relationship between Gaming addiction to Massively Multiplayer Online Games (MMOGs) and Quality of life among Addicted and Non-addicted young adults/ students.

N=100

S.No.	GAMING ADDICTION SCORE	Domain	r value		p value	
			Addicted (n=39)	Non-addicted (n=61)	Addicted (n=39)	Non-addicted (n=61)
1		Domain 1 (Physical)	0.060	-0.055	0.716NS	0.673NS
2		Domain 2 (Psychological)	-0.249	-0.188	0.124NS	0.146NS
3		Domain 3 (Social Relationship)	0.008	0.236	0.959NS	0.066NS
4		Domain 4 (Environment)	0.023	0.104	0.885NS	0.424NS

p<0.05

Table no. 4 depicted that there was no significant relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and quality of life among addicted and non-addicted young adults/ students at p<0.05.

Discussion

Our study revealed that out of 100 young adults/ students selected through purposive sampling technique, majority of the population (61%) was not addicted to Massively Multiplayer Online Games (MMOGs) and the rest of the population (39%) was addicted to MMOGs. In order to assess their quality of life for our study, we used WHO-QOL BREF likert scale. Category wise ranking of quality of life was done in accordance to the scoring of the tool. The scale has been divided into four major domains i.e. Physical Health contains seven questions about physical health, Psychological Domain contains six questions, Social relationships Domain consists three questions and Environment domain consists 8 questions. Categories of likert scale were divided into excellent, very good, good, average, poor.

Among 39% of addicted young adults/ students in terms of quality of their life, 67% had good level, 26% had very good level, 5% had excellent level, and 2% had average level and none of the young adults/ students had a poor level of it. On the other side there were 61% of non-addicted young adults/ students and in terms of their quality of life, 69% had good level, 26% had very good level, none of the young adults/ students had excellent level, 3% had average level and 2% of the young adults/ students had a poor level of it.

A similar study was there on the influence of internet based activities on quality of life which concluded that 14.1% participants believed that their quality of life could be improved by limiting access to internet usage for different activities including playing online games which also emphasized on the fact that playing internet based gaming also affected their physical their physical quality of life. In our study it has been found that there is weak positive correlation between gaming addiction and quality of life. Contrary to Mr. Pontes' study, environment domain was found to have been affected the most among subjects in our study.⁹

In order to assess the relationship between gaming addiction to Massively Multiplayer Online Games (MMOGs) and quality of life among addicted and non-addicted young adults/ students, Karl Pearson's correlation coefficient was used in order to find a relationship between the gaming addiction scores of addicted and non-addicted young adults/ students with different domain wise score of WHOQOL-BREF.

Among 39 addicted young adults/ students, there was weak positive correlation between gaming addiction score and domain 1, 3 and 4 whereas a weak negative correlation between gaming addiction score and domain 2 at $p < 0.05$. Among 61 non-addicted young adults/ students, there was a weak negative correlation between gaming addiction score and domain 1, 2 whereas a weak positive correlation between gaming addiction score and domain 3, 4 at $p < 0.05$. A similar study was conducted on the relationship between computer games and quality of life and it was concluded that playing computer games for long hours can have negative impact on health which may lead to poor quality of life. Similarly, our study concluded that gaming addiction may hamper many domains of quality of life primarily the Environment domain.⁸

Conclusion

In the present study, among a sample of 100 young adults/ students, 39 were found to be addicted to Massively Multiplayer Online Games (MMOGs) and 61 were found to be non-addicted. 68% of the population had a Good level of quality of life. There was a weak positive correlation between gaming addiction score and different domains of quality of life (Physical, Psychological, Social relationships and Environment) among young adults/ students.

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