



A co-relational study to assess the problematic digital gaming behavior and its relation to bio- psychosocial health among adolescents of selected areas of district Mohali, Punjab.

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Abstract

Introduction : Digital games can have various negative impact on the gaming addicts, such as impairment of social relationships, behavior problems, failure to fulfill role obligations at school and at home, violating school rules and psychological problems.

Aim: The aim of the study is to assess the problematic digital gaming behavior and its relation to bio- psychosocial health among adolescents of selected areas of district Mohali, Punjab.

Methods: A quantitative approach with co-relational non-experimental research design was adopted by convenient sampling technique in which 200 adolescents of selected areas of district Mohali were selected. Gaming addiction scale was used to assess the level of problematic digital gaming behavior and self-structured rating scale was used to assess the relation of problematic digital gaming behavior on the bio-psychosocial health of adolescents. The data was collected, organized, tabulated and analyzed by descriptive statistics such as mean, median, frequency, percentage, standard deviation, and inferential statistics such as chi-square & fisher's exact test on the basis of the objectives of the study was used for finding.

Results: Majority 117(59%) of adolescents were having severe level of problematic digital gaming behavior. out of three aspects, problematic digital gaming were having more relation with biological health as compare to psychological and social health respectively. there was moderate positive co-relation (0.34) between the problematic digital gaming behavior and its relation to bio-psychosocial health of adolescents.

Conclusion: Adolescents were having problematic digital gaming behavior, which is having relation on their bio-psychosocial health. There was significant association found between problematic digital gaming behaviors.

Keyword: Problematic digital gaming behavior, relation, bio-psychosocial health, adolescents.

Introduction

Adolescence could even be a period of the life with specific health and developmental needs and rights¹. Adolescence could even be a period that begins with puberty and ends with the transition to adulthood (approximately ages 10–20). There are many changes occurred during this stage. Hormones trigger physical changes related to puberty. Cognitive changes include improvements in complex and intellection, additionally as development that happens at different rates in distinct parts of the brain and increases adolescent's propensity for risky behavior because of increase in sensation seeking and reward the motivation that precedes increases in cognitive control².

Digital devices have also become a replacement for classroom learning, in-person meetings and possibly the first way we keep informed on news. The reliance on social media and thus the digital technology to stay us informed and entertained has also undoubtedly increased, driving us to test notifications and scroll more frequently than before the COVID-19 the pandemic³.

Smartphone addiction has become a difficulty of great concern for all age groups, but the addiction of kids towards these phones is seen as a dangerous trend by researchers. During the primary three to four months of the covid-19, pandemic people became keener about smartphones. Those children who were hardly obsessed with android cellphones also got obsessive about it during the covid-19 lockdown⁴.

With schools closed for almost one year and online classes becoming the new normal, more and more children are now showing symptoms of mobile addiction that is causing behavioral problems⁵. Online problematic gaming can be viewed as a Specific type of video game addiction, as a variant of internet addiction, or as an Independent condition⁶.

Objective:

1. To investigate the usage of digital games among adolescents of selected areas of district Mohali, Punjab.
2. To assess the problematic gaming behavior among adolescents of selected areas of district Mohali, Punjab.
3. To find the association between the digital gaming usages with selected socio- demographic variables among adolescents of selected areas of district Mohali, Punjab.
4. To find the co-relation between the problematic digital gaming behavior and the bio- psychosocial health among adolescents of selected areas of district Mohali, Punjab.
5. To find the association between the digital gaming behaviors with the bio- psychosocial health among adolescents of selected areas of district Mohali, Punjab.

Material and Methods

A co-relational non-experimental research design was adopted to assess the problematic digital gaming behavior and its relation to bio-psychosocial health among adolescents of selected areas of district Mohali, Punjab. The selected areas were urban area (6-phase) of district Mohali, Punjab for pilot study and for main study rural area (Bar Majra) of district Mohali, Punjab. Adolescents who were in the age group of 10-19 years in selected areas of district Mohali, Punjab were included in the study. The sample size was 200 adolescents residing in selected areas selected by using non-probability convenient sampling technique.

Socio-demographic data of the participants were taken. Standardized Jereons lemmens Game Addiction Scale is used to assess the problematic digital gaming behavior. Self –structured rating scale were used to assess the problematic digital gaming behavior and its relation to bio-psychosocial health among adolescents.

Results

More than half 93(47%) of the participants were in the 13-15 years age group 69% of were boys. 72% of the adolescents were Upto primary level and belonged to nuclear family, 59% of the adolescents were belonged to first ordinal position, 61% of the adolescents were having one number of siblings, 54% of the qualification of parents were undergraduate, 59% of the adolescents were having monthly income between 20,001-40,000/-, 67%of the adolescent's parents were having private job, 66% of the adolescents mother were homemaker , 58%of the adolescent's father working hours between 10-12 hours, 94% of the adolescents were used cellphone , 45% of the adolescents were

playing shooting game, 83% of the adolescents were used more than 1 hours per day , 52% of the adolescents were playing between the 3-4 hours per day, 49% of the adolescents were studying between 1- 2 hours per day , 100% of the adolescents cellphone were not allowed in school 50% of the adolescents were played two games in a day , 66% of the adolescents were downloaded one game in their phone. 59% (mean \pm SD, 14.56 \pm 2.77) of adolescents were having severe level of problematic digital gaming behavior. 71% of the adolescents were having moderate relation with biological health due to problematic digital gaming behavior, 81% were having moderate relation with psychological health due to problematic digital gaming behavior, and 60% were having moderate relation with social health due to problematic gaming behavior.

Table 1: Frequency and percentage distribution of level of problematic digital gaming behavior among adolescents.

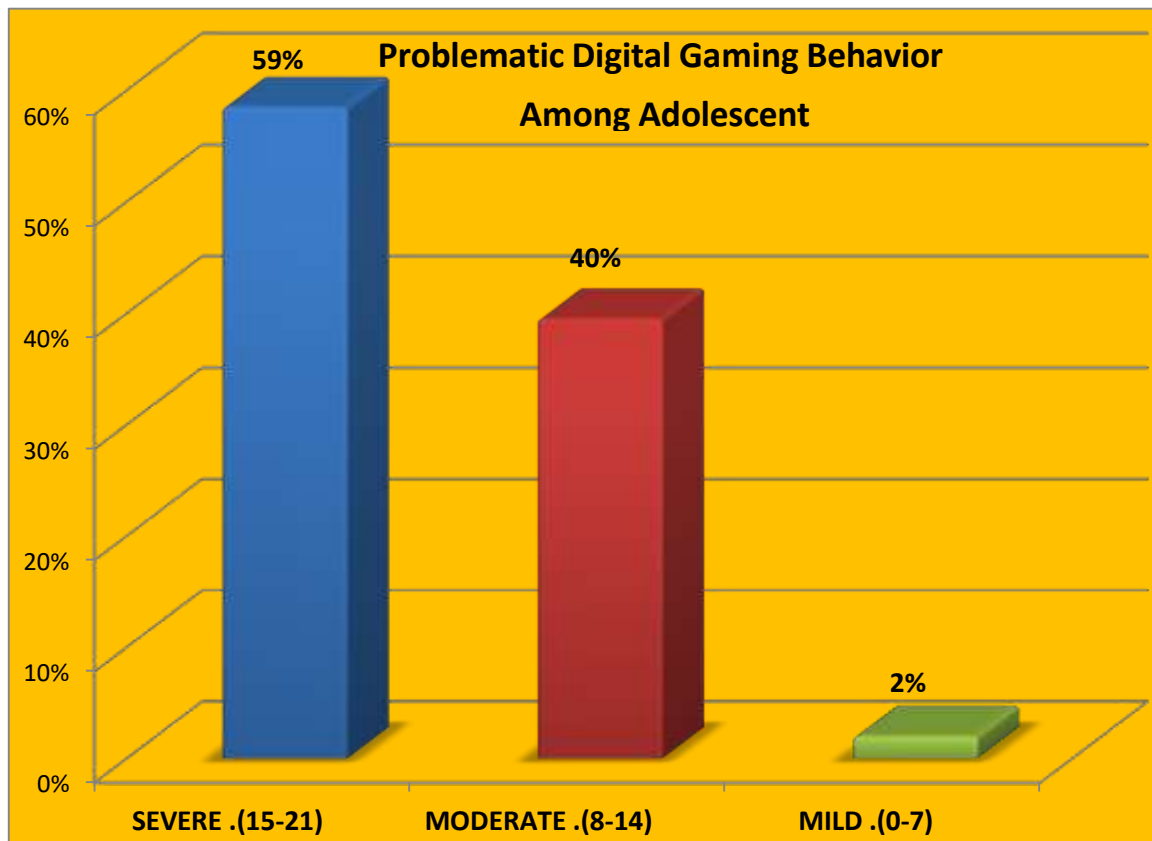
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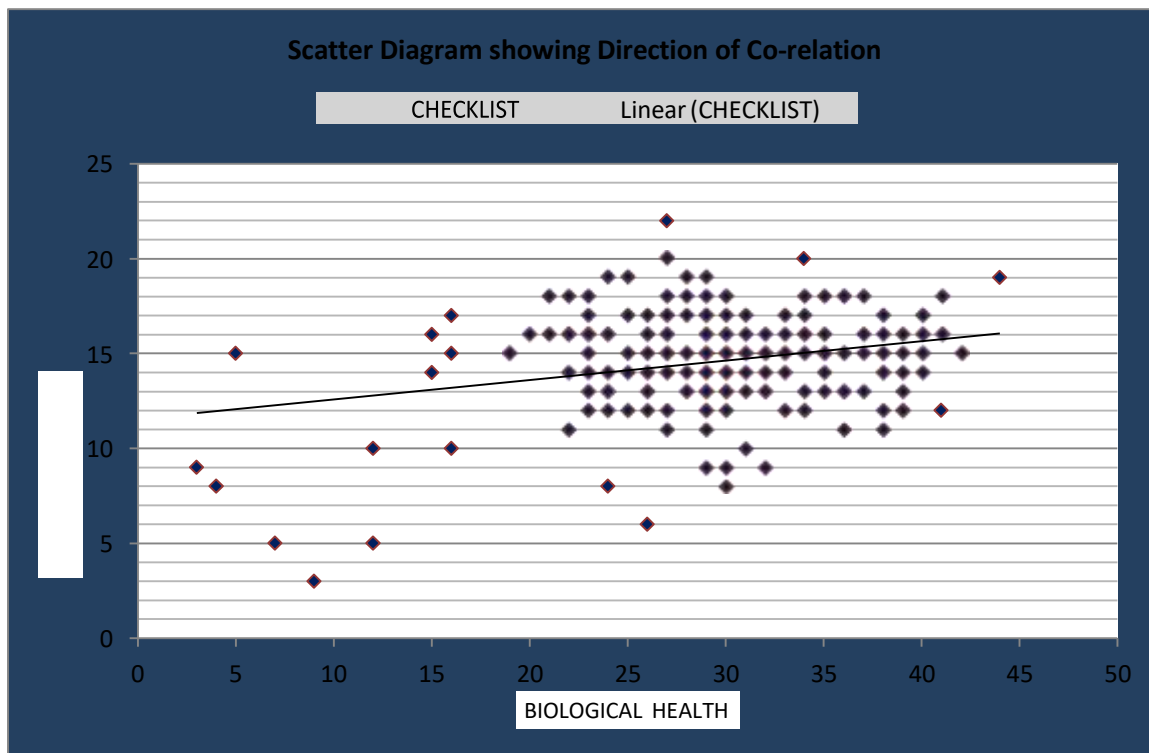
Level of problematic digital gaming behavior	Score	Frequency (f)	Percentage (%)
Mild	0-7	4	2%
Moderate	8-14	79	40%
Severe	15-21	117	59%

Table 2: Frequency and percentage distribution of relationship of problematic digital gaming behavior on the bio-psychosocial health among adolescents.

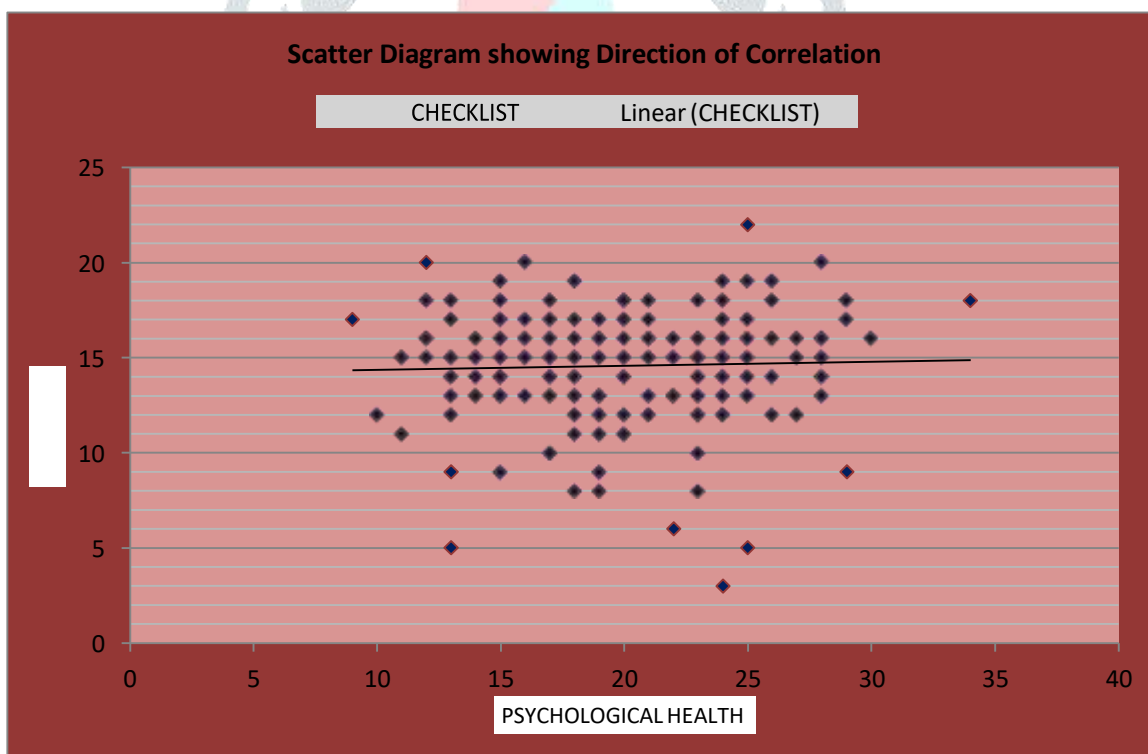
N=200

S.NO.	Problematic digital gaming behavior on bio-psychosocial health	Score	Frequency (f)	Percentage (%)
		BIOLOGICAL HEALTH		
1.	Mild impact	0-17	12	6%
2.	Moderate impact	18-34	141	71%
3.	Severe impact	35-50	47	24%
	Median(min- max)	29		
	Mean ± SD	29.33 ± 7.22		
PSYCHOLOGICAL HEALTH				
1.	Mild impact	0-13	22	11%
2.	Moderate impact	14-26	161	81%
3.	Severe impact	27-40	17	9%
	Median (min-max)	20		
	Mean ± SD	19.73 ± 4.81		
SOCIAL HEALTH				
1.	Mild impact	0-13	22	11%
2.	Moderate impact	14-26	120	60%
3.	Severe impact	27-40	58	29%
	Median (min-max)	23		
	Mean ± SD	22.18 ± 7.33		

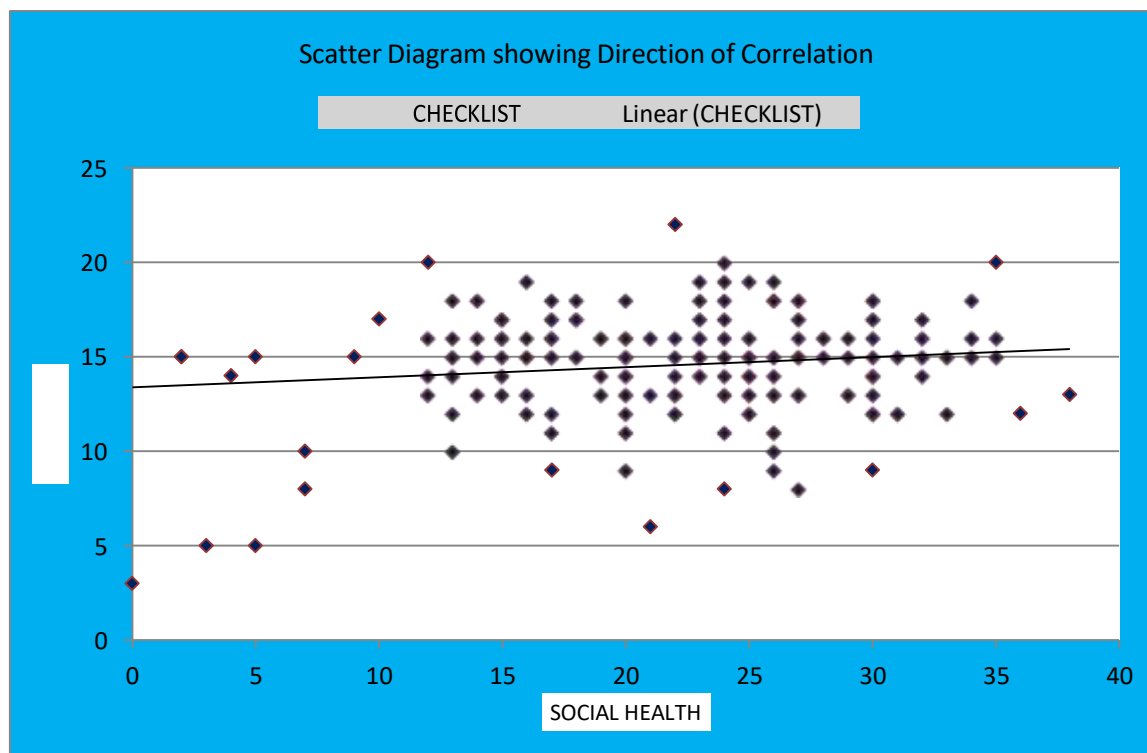




Scatter diagram showing the co-relation between problematic digital gaming behavior and its relation with biological health .



Scatter diagram showing the co-relation between problematic digital gaming behavior and its relation with psychological health



Scatter diagram showing the co-relation between problematic digital gaming behavior and its relation with social health .

Discussion

It was found that more than half of the adolescents i.e., 59% having the severe level of usage of digital games , 40% having the moderate level of usage of digital games, 2% having the mild level of usage of digital games. Findings showed that 59% were having the severe level of problematic digital gaming behavior, 40% were having the moderate level of problematic digital gaming behavior and 2% were having mild level of problematic digital gaming behavior among adolescents.

There was a significant association of digital gaming usages with type of family, use of gadget and games were played in a day. There was no significant association with age (in years), gender, educational level, type of family, ordinal position of the child, number of siblings, qualification of father, qualification of mother, occupation of father, occupation of mother, daily working hours of father, daily working hours of mother, type of gadgets used for playing games, cell phones are allowed in the school, games are played in a day, games are downloaded in the cellphone.

There was moderate positive correlation ($r=0.347$) found between the problematic digital gaming behavior and bio-psychosocial health of adolescents. There was significant association of digital gaming with monthly income, qualification of mother, use of gadget, playing time (hour/day), games you play in a day.

There was a significant association with type of family, qualification of mother, monthly income, use of gadget, playing time (hours/day), games you play in a day in physical impact of health. Finding of the study revealed that there was a significant association with the games is downloaded in the person's phone in psychological impact of health. Findings of the study revealed that there was a significant association with type of family, type of game is your favorite, use of gadget, and games are played in a day in social impact of health.

The present study aimed to assess the problematic digital gaming behavior and its relation to bio-psychosocial health among adolescents of district Mohali, Punjab. The Gaming Addiction Scale (GAS) was found effective in assessing the level of problematic digital gaming addiction and self-structured rating scale was found effective in assessing the relation of problematic digital gaming behavior on bio-psychosocial health of adolescents.

Conclusion

This study concluded that the problematic digital gaming behavior having the relation with the bio-psychosocial health of the adolescents.

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