

Comparative Study

Exploring the Connection Between Internet Gaming Disorder, Perceived Stress and Impulsivity in Adolescent Males: A Comparative Study

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ABSTRACT

IGD and non IGD groups. A higher degree of impulsivity became related to a better level of perceived stress among people with the prevalence of online gaming among teens has grown these days both in India and abroad. It consists of playable video games that are handy via networks. Net gaming ailment, categorized into DSM-five TRV and ICD-eleven, is inflicting net addiction in young adults, in line with the WHO. Increased IGD may be difficult and have an effect on impulsivity and a sense of stress. This co-relational take a look at IGD and non-IGD that demonstrates – the ramification of internet gaming disease in impulsivity and perceived stress in male teenagers. Male teenagers aged 10 to 19 are the subjects of this study. In this we hire Barratt impulsivity scale, the Internet gaming disorder scale short form–09, and the Perceived stress scale. We used a sensible choice method with a pattern length of 100(IGD= 50 and non-IGD= 50) will be associated via purposive sampling. The end result was that there was a good-sized distinction in impulsivity among IGD and non IGD groups, but no sizable difference became located in the stage of perceived stress amongst IGD, whereas there was no massive courting between perceived stress and impulsivity amongst people without IGD.

Keywords: *Internet Gaming Disorder, Perceived stress, Impulsivity, Male adolescents*

Internet gaming, also known as online or digital gaming refers to playing video games over the internet or through a network connection. It involves individuals or groups of players interacting with each other virtually in asynchronously through online gaming platforms. An adolescent is typically defined as an individual who is going through the stage of development between childhood and adulthood. This stage is characterized by significant physical, cognitive, and emotional changes. Adolescence typically begins with the onset of puberty ends when an individual reaches adulthood, usually around the late teens or early twenties.

Impulsivity can be described as the inclination to act on immediate impulses or desires without fully considering the potential outcome or consequences. It encompasses a

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deficiency in inhibitory control and the incapacity to postpone gratification. Impulsivity can have both positive and negative aspects. Impulsivity is a proneness act in accordance with urge, which exhibit behaviour signalized by anticipation, reflection, or consideration outcome. It can be classified as a multifactorial construct.

When such actions have a positive outcome then these signs are not considered as impulsivity, whereas it is considered as audacity, zeal, rapidness, fearlessness, unconventionality etc. An impulse is a peculiarly an urge of impetuous which can be considered as a standard and cardinal part of human thought processes, but these can be knotty, as in a condition like obsessive compulsive disorder, bipolar personality disorder, or in fetal alcohol spectrum disorders.

Perceived stress refers to an individual subjective evaluation or appraisal of the level of stress the individual experiences in their lives. It focuses on how individual's perceive and interpret the demands, pressures and challenges the individual faces, rather than solely on the objective circumstances themselves. It can be influenced by variety of factors, including personal characteristics, cognitive processes, and environmental circumstances.

The games which are accessible solely through an Ethernet connection included internet gaming. It has been a feature of startup companies, and admission into various game categories has become increasingly common these days. For instance, there are enhanced reality-based machine learning and pursuits like Pubg, free fire, and others. With over 13 crore players distributed across 200 networks, India has the second highest player population, behind South Korea. Individuals under the age of 18 are only allowed to work for 3hours per week in China. The American psychological association (APA) has labeled internet Gaming sickness (IGD) as a capacity psychiatric circumstance within the Diagnostic and Statistical guide of intellectual problems (DSM-five). This designation acknowledges that IGD involves chronic and excessive engagement in video games or online gaming, which adversely influences various aspects of a person's every day existence, together with their employment or occupational functioning. Online gaming has a variety of negative effects on our bodily health, including wrist, elbow, and neck discomfort, obesity, weak points, and more. These will initially be short-term, but they can be made long-term. In India, IGD affects both males and females equally (1.3% to 19.9%). Male adolescents are more common than female adolescents, according to a survey. It has been recognized as medical condition in 2018 by World Health Organization.

It was defined as “when an individual play online games and give too much time as comparative to their other daily activities then it is a key sign. Even the individual gets distressed and is not able to stop thinking about the strategy of game or about the game even when they are not playing”. – WHO

MATERIAL AND METHODS

Sample

This prospective casual Comparative study was conducted among 100 male adolescents whose age bar was between 10 – 19 years who were selected using purposive sampling and from urban region of Raipur, Chhattisgarh, India. For this purpose, firstly we had chosen male adolescents who were briefed about the research, and participants and their parent's consent were taken. The sampling frame of 100 male adolescents consists of 50 for IGD and 50 for non IGD groups.

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Inclusion Criteria

The participants should be male adolescents and should fit in the criteria of IGD which means they should fit in the criteria of 5 out of 9 to be considered as individual with IGD, whereas for non IGD participants they should be male and should not fit in the criteria of IGD which means they should not fulfilled the criteria of 5 out of 9 to be considered as individuals with non IGD.

Study Procedure

Research assistant had approached many children in Raipur city. In which the participants were briefed about the study and the tests; their informed consent were obtained. Afterwards, paper-pen tests were administered, which took the participants between 15 – 20 minutes to complete the test. A total of 100 participants filled out the survey; in which 50 were identified with IGD and the rest 50 were identified as non IGD.

Exposures

A shortened model of the net Gaming sickness scale (IGD SF-09) changed into advanced via Pontes and Griffiths. This evaluation consisted of nine gadgets, every rated on a five-factor Likert scale. the dimensions was designed to entirely focus on the nine standards of net Gaming sickness, and people who met five out of the nine criteria have been identified as having IGD. Another take a look at that became utilized became the Barratt Impulsiveness Scale-eleven (BIS-eleven), evolved by using Patten, Standford, and Barratt. This test had 30 items with 4 point likert scale. Last scale which was administered was Perceived Stress Scale (PSS), which had 10 questions, which score ranges from 0 to 40.

Statistical Analysis

This is a prospective casual Comparative study; therefore, we had used Pearson Product Moment correlations and T - test, which was completed between the variables with the assistance of SPSS. No other statistical analysis was used.

RESULTS

The goal of the analysis of data is to extract meaningful insights and knowledge from the primary data. This had helped to make the decision or conclusion for the study. This is used to validate the hypothesis and reach a meaningful conclusion. This study had followed the different statistics used to validate the hypothesis are Descriptive analysis, T statistical analysis, and correlational analysis.

Descriptive analysis was conducted on several variables in the research study. The mean age of the participants was 16.31 years, with a standard deviation of 2.04. The majority of participants belonged to the upper socio-economic status category (n = 43), followed by the middle (n = 52) and lower (n = 5) categories. The average sleep duration was 8.26 hours, with a standard deviation of 1.51, and the most common sleep duration reported was 8.00 hours. Participants reported playing video games for an average of 3.06 hours per day, with a standard deviation of 0.91. The most frequently reported playing duration was 4.00 hours. These descriptive statistics provide an overview of the age distribution, socio-economic status, sleep duration, and playing hours in the dataset, laying the groundwork for further analysis in this study.

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Table- 1 Descriptive Statistics for Impulsivity & Perceived Stress.

	M	Median	Mode	Std. V	Range
Impulsivity	73.42	75.00	75.00	7.63	44.00
Perceived Stress	22.29	21.00	20.00	5.27	27.00

The table presents descriptive statistics for two variables: impulsivity and perceived stress. The mean impulsivity score is 73.42, indicating the average level of impulsivity among the participants. The median score of 75.00 represents the middle value in the dataset when arranged in ascending order, while the mode of 75.00 indicates that this score occurs most frequently. The range is found to be 44. The standard deviation of 7.63 suggests a moderate amount of variability in impulsivity scores. Moving to the perceived stress variable, the mean score is 22.29, reflecting the average level of perceived stress among the participants. The median score of 21.00 represents the middle value in the dataset, while the mode of 20.00 indicates the most frequently occurring score. The range is found to be 27. The standard deviation of 5.27 suggests a moderate amount of variability in perceived stress levels.

Table-2 T-Statistics for Impulsivity Among IGD and Non IGD.

		T	df	Significance	
				One-Sided p	Two-Sided p
Impulsivity	Equal variances assumed	3.149	98	.001	.002
	Equal variance not assumed	3.149	88.273	.001	.002

The statistical results for the variable "Impulsivity" are presented in Table. The analysis was conducted using independent samples t-tests, assuming equal variances ($t = 3.149$, $df = 98$, one-sided $p = .001$, two-sided $p = .002$). The results indicate a significant difference in impulsivity scores between the compared groups. Thus, the null hypothesis is rejected.

Table-3 T-Statistics for Perceived Stress Among IGD and Non IGD.

		T	df	Significance	
				One-Sided p	Two-Sided p
Perceived stress	Equal variances assumed	1.023	98	.154	.309
	Equal variances not assumed	1.023	97.865	.154	.309

The results of the statistical analysis for the variable "Perceived stress" are presented in Table. Independent samples t-tests were conducted, assuming equal variances ($t = 1.023$, $df = 98$, one-sided $p = .154$, two-sided $p = .309$). The results indicate that there is no statistically significant difference in perceived stress scores between the compared groups. Thus the above null hypothesis is accepted.

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Correlations				
IGD & Non – IGD			Impulsivity	Perceived Stress
IGD	Impulsivity	Pearson Correlation	1	.353*
		Sig. (2-Tailed)		0.12
	Perceived Stress	Pearson Correlation	.353*	1
		Sig. (2-Tailed)	0.12	
Non – IGD		Pearson Correlation	1	-.036
		Sig. (2-Tailed)		.805
		Pearson Correlation	-.036	1
		Sig. (2-Tailed)	.805	

*. Correlation is significant at the 0.05 level (2 –tailed)

Correlational analysis between Impulsivity and Perceived Stress among IGD and Non-IGD

In the correlation analysis, for the IGD (Internet Gaming Disorder) group, there was a positive correlation between impulsivity and perceived stress, with a Pearson correlation coefficient of .353 ($p = .012$). This indicates that higher levels of impulsivity were associated with higher levels of perceived stress among individuals with IGD. Whereas, for the non-IGD group, no significant correlation was found between impulsivity and perceived stress ($r = -.036$, $p = .805$). These findings suggest that the relationship between impulsivity and perceived stress differs between individuals with and without IGD. The sample size for both groups was 50 participants. The correlation is significant at the 0.05 level (2-tailed).

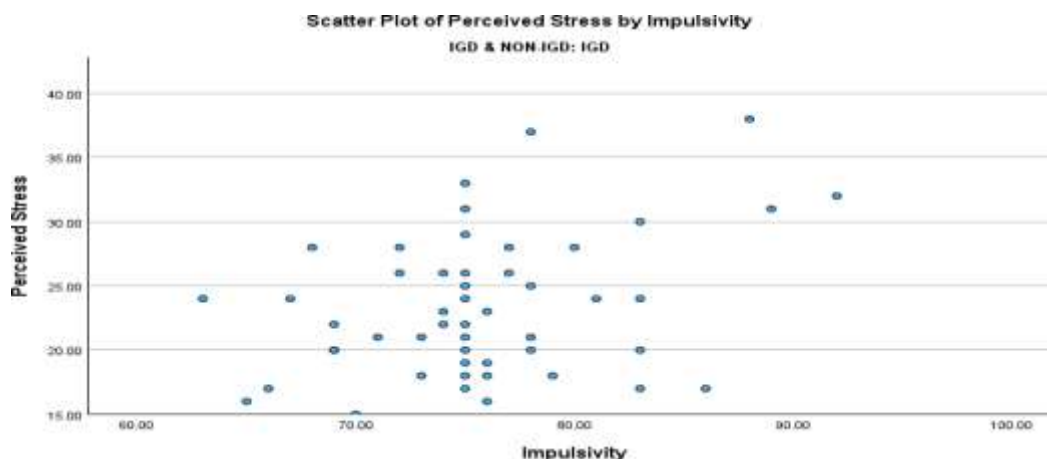


Figure 1. Scatter diagram presenting positive correlation between perceived stress and impulsivity among IGD group.

RESULT AND DISCUSSIONS

The principle intention of this study was to look at and scrutinize whether there's an enormous dating among impulsivity and perceived stress in internet Gaming disorder and Non – internet Gaming disorder which was conducted on adolescent male contributors. Facts and the character's capability to play video games for a longer time frame have been used to make this decision. To determine if there are any differences between the IGD and

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non IGD groups, a test examination, descriptive analysis and correlational analysis were conducted. The study yielded three key findings. Firstly, there was a significant difference in impulsivity between participants with IGD and those without. Secondly, there were no significant differences in perceived stress between IGD and non IGD group. Lastly, a strong positive correlation was observed between impulsivity and perceived stress among individuals with IGD, whereas no significant correlation was found between impulsivity and perceived stress among individuals without disorder.

The information gathered from this study aligns with previous research indicating that perceived stress may not have a significant impact on individuals without IGD. The findings of this have critical implications for both theoretical and realistic domains. From a theoretical perspective, the take a look at gives proof that there's no vast distinction within the perceived pressure among non IGD and IGD individuals, in addition to there is a massive difference among impulsivity among IGD and non IGD. This result expands the array that has looked at the connection among the perceived pressure amongst non IGD and IGD and impulsivity amongst IGD and non IGD individuals.

Concerning to the evaluation of literature many research shows off that there's an immediate courting between impulsivity and perceived stress among IGD and Non IGD male youngsters. regardless of, consistent with this examine it famous that there is no wonderful relationship between impulsivity and perceived stress amongst Non IGD male kids because at the same time as there's no correlation amongst impulsivity and perceived strain amongst people without IGD, it expertise that those variables are not associated with each specific in this unique populace. This finding suggests that for individuals who do not experiences IGD, the level of impulsivity they exhibit does not strongly influence their perceived levels of stress.

Scientific research indicates that among individuals without IGD, there is a lack of strong correlation between impulsivity and perceived levels of stress. A have a look at via Kuo, Lin and Hsiao in year 2014 investigated the relationship among impulsivity and perceived strain among college students. They determined that even as there has been a large excessive nice correlation amongst impulsivity and perceived strain amongst college students with IGD. These correlations become now not significant in university students of Non IGD. This knows how that the connection among impulsivity and perceived pressure is probably specific to human beings with positive net related troubles.

CONCLUSIONS

Based on our study findings, we can conclude that IGD is a growing concern among adolescents, often co-occurring with stress. Our research sheds light on the prevalence of gaming addictions among adolescents and their adverse effects on physical, social, emotional, and psychological well-being. Specifically, our results indicate a significant difference in impulsivity between the IGD and non IGD groups. However, there were no significant differences in the level of perceived stress between these two groups. Among individuals with IGD, higher level of impulsivity was associated with a higher perception of stress. In contrast, there was no significant relationship between perceived stress and impulsivity among individuals without IGD.

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Conflict of Interest

The author(s) declared no conflict of interest.

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