

“Psychological Impact Of PUBG Addiction Among Junior College Students”

Mr. Pramod Pawar¹ , Mr. Bahubali Jinnappa Geddugol²

¹M Sc Nursing in Mental Health (Psychiatric) Nursing, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414, <https://orcid.org/0000-0003-1024-700X>

²Associate Professor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414, <https://orcid.org/0000-0002-2282-5818>

Corresponding author Email ID:bahubali.geddugol@bharatividyaapeeth.edu

Orchid ID:<https://orcid.org/0000-0002-2282-5818>

Abstract

PUBG is a game which attract all the youngsters the game is based on violation, aggressiveness, fearfulness and much more factors which leads to PUBG addiction. A descriptive survey research design was adopted for this study. The study was conducted in selected areas of Sangli Miraj Kupwad Corporation Area. The samples size was 61 out of 150 surveyed students those were playing PUBG six months back and were in the category of prone addicted and defiantly addicted to PUBG. The surveyed subjects were selected by using non randomised snowball sampling technique.

Data was collected by using the tools ie. 1.PUBG addiction test (PAT) and 2. Assessment of Psychological Changes. The data was analysed using descriptive and inferential statistics. The finding of the study showed. The 17 years of age subjects had highest involvement i.e. 43.33% (65), studying in science stream were 47.33% (71). Among the year of study 56% (84) were from 12th grade. The findings related to level of PUBG addiction among 150 surveyed samples revealed that 6.67% (10) were defiantly addictive and 34% (51) were addict prone. Whereas 47.33% (71) of subjects had average and 12% (18) had low level of addiction to PUBG. Notably, among the players no one was in minimal/no level of addiction category. Assessment of psychological changes the concentration and focus skills area 9,85% had severe changes, 32.8% had moderate, 42.6% had mild and 9.85% students had minimal psychological changes. In assessment of the attention scores, 40.98% had moderate psychological impact, 44.26% had mild and 14.74% students had minimal psychological impact. In assessment of the sadness scores, 1.63% had severe psychological impact, 21.31% had moderate, 50.82% had mild and 22.23% students had minimal psychological impact. In assessment of the anxiety scores, 24.6% had moderate psychological impact, 54.1% had mild and 21.3% students had minimal psychological impact. In assessment of the anger scores, 19,67% had severe psychological impact, 26.22% had moderate, 26.22% had mild and 27.86% students had minimal psychological impact. The level of PUBG addiction was not significantly associated with the psychological change at the obtained value of $\chi^2 = 0.63$ and $p = 0.72$. The obtain p value of components were greater than 0.05 hence it was not significantly associated.

Hence the study concludes that the nurses and in particularly the psychiatric nurses are at important venture to create the awareness and make the young population to adopt healthy practices of playing different outdoor and indoor games.

Key Words: Junior College, PAT, Psychological Impact, PUBG Addiction, Students

Introduction:

The history of video games started during the year 1950. When scientists of computer developed basics games as a part of the research in the 1960s at the Massachusetts Institute of Technology (MIT) teachers and students played games like 3D tic tac toe and the moon landing. This computer game was played on IBM 1560 version. Video games were not been popular till 1970s and 1980s. When arcade games and video game consoles using keyboards, remote, joystick, buttons, and other controls with graphics were introduced to the public.¹ Goals, rules, obstacles, and relationships are the game's primary components. Sports typically entail both emotional and physical stimulation. Many games aid in the development of practical skills, serve as a form of exercise, or serve another educational, imitative, or psychological purpose.²

PUBG is an online multiplayer game that is famous all over the world PUBG (players unknown battleground) is a South Korean game of blue hole company published and developed by PUBG corporation. In the game of PUBG, the last stand wins in the game at the starting point 100 of players are present select the location in map and land over that location after landing start to loot the guns drinks, and other necessary things to survives. The game has both single and multiplayer options. In the game, while playing the player can talk to other players to coordinates to kill the enemy. In the game, players can use cars helicopter bikes, and boats. Try to get in the blue zone or else the player will die. Each game is about 45 minutes. The player can choose the server which he is going to play. The graphics of the game is attractive. Players can play with 100 players at a single time hence it is the most loved and addictive game. PUBG was released in December 2017³. As per the Indian constitution Under Section 69A of the Information Technology Act, the Indian government recently outlawed PUBG Mobile in the country. The ban stated that the application was engaged in activities that were detrimental to the country's sovereignty, integrity, defence, and security. Many things have happened since then, including PUBG Corporation's decision to cancel the game's distribution rights in India from Tencent. Despite this, there are no indications that the famous game will return to the country any time soon. The Battle Royale game has been outlawed in a number of countries, including India ⁴. This game is mostly attracted by youngsters between the age of 16 to 30 years The constant play of games leads to vision problems in adolescents. While playing games, they forget about their daily work and their time. We see that they play until almost midnight instead of falling asleep. Because of this, they are unable to concentrate on their activities

and may have lower results. Then, because these games contain in-app purchases, teens are likely to spend a lot of money (if they can) resulting in wasted wealth. These things seem to be common, but they are serious issues, so parents will be better off watching their kids⁵. The World Health Organization recently approved the 11th edition of the International Classification of Diseases and Related Health Problems (ICD-11), which includes the term "gaming disorder." It will take effect on January 1st, 2022. The PUBG game causes psychological issues such as impulsivity, fear, and ADHD (Attention Deficit Hyperactivity Disorder). Physical conditions that are out of control several news reports have been published⁶.

Review of Literature:

A) Review of literature related to PUBG addiction:

Swati Aggarwal and Shivani Saluga did a study on Multiplayer Online Battle Arena (MOBA) is the most popular online video game genre for gamers around the world. Internet gaming disorder is associated with mental disorders such as impulsivity, anxiety, and attention deficit hyperactivity disorder (ADHD). In this study, the researcher proposes the use of game and player statistics together with the measure of player self-esteem in unknown battlegrounds (PUBG, MOBA game), ADHD, and generalized anxiety disorder (GAD) to determine if they suffer from IGD and disorders. Mental. Extract the game from PUBG players and player statistics from Asian countries and then run a series of sophisticated supervised machine learning models to predict the emergence of IGD, ADHD, and GAD. Initial experiments and results show that the researcher is able to alternate IGD, ADHD, and GAD with an accuracy of 93.18%, 81.81%, and 84.9%, respectively. PUBG gamers game stats show a strong positive correlation with IGD and ADHD, indicating the detrimental effects of MOBA game⁷.

S M Grüsser R Thalemann, M D Griffiths computer games are becoming an increasingly important part of everyday life for many teenagers. Along with this phenomenon, the popular press, as well as recent scientific studies, have discussed reports of an excessive number of games (computer games) referred to as "computer/video game addiction". The study aimed to investigate the addiction and the relationship between excessive gaming and aggressive attitudes and behaviors. A sample of 7069 players answered two online surveys. The data showed that 11.9% of participants (840 players) met the diagnostic criteria for addiction concerning their gambling behavior, while there is weak evidence to suggest that aggressive behavior is generally associated with excessive gambling. The results of this study support the hypothesis that games without financial rewards also meet addiction criteria. The data showed that 11.9% of participants (840 players) met the diagnostic criteria for addiction concerning their gambling behavior, while there is weak evidence to suggest that

aggressive behavior is generally associated with excessive gambling. The results of this study support the hypothesis that games without financial rewards also meet addiction criteria⁸.

B) Psychological changes due to gaming.

Craig A Anderson research on the effects of exposure in violent video games. An updated meta-analysis shows that exposure to violent video games is largely associated with increased aggressive behavior, aggressive cognition, aggressive emotions and cardiovascular arousal, and a decrease in supportive behavior. It is experimental studies have shown that this association is causal. Correlation studies reveal an association with serious, real-world types of aggression. Methodologically weak studies result in smaller effect sizes than methodologically robust studies, and previous meta-analysis studies of violent video games have shown the true magnitude of the observed detrimental effects on behavior, cognition, and emotions⁹.

Matteo Ballabio, Mark D. Griffiths, conducted the study on "Do gaming motives mediate between psychiatric symptoms and problematic gaming an empirical survey study was conducted that game motives play an important role in many addictive activities, including online games. The data collection was carried out online and was targeted at active Italian speaking online players on popular Italian gaming forums and / or Italian online gaming related groups on social media sites. The final sample size consisted of 327 participants. The two instruments showed good psychometric properties in the Italian model. General psychiatric disorder had a significant direct effect on problematic online games and a significant indirect effect on two goals: escape and fantasy. Psychiatric symptoms are directly and indirectly associated with problematic online gaming. Playing online games to escape and avoid everyday problems is considered a motivation to deal with psychiatric problems and problem games¹⁰.

Lokesh Kumar, Ms. Lakshmi Priya this study focuses on PUBG sports addiction and its health problems among the youth of Erode city. This study will address PUBG addiction and its health problems among the youth of the city of Erode. We now live in an era of rapid technological change as computer technology and the Internet continue to progress. New media and new communication techniques have emphasized speed events and digitization has a profound impact on almost every sector. Today, new technology is emerging in a new way. Where artificial intelligence and motion graphics are updated every day. This study shows the effects of PUBG among the youth of the city. They have been selected by a maximum of 158 respondents in the youth, they belong to any department and current, and they have a smartphone with internet. He is between 15 and 40 years old. With the help of a Google Form online questionnaire, conducting survey research in which one finds how many young PUBG are playing, how much time they spend playing those games, what is

the level of influence in their daily life. As for the shows, most of the youngsters play PUBG for entertainment and PUBG has no effect on their life¹¹.

Material and Methods:

A descriptive survey research design was adopted for this study. The study was conducted in Miraj Market area, Samtanagar and Khanbag area under Sangli, Miraj, Kupwad corporation jurisdiction. The prior permission was obtained after the review and permission from institutional ethics committee of Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli. Reliability was done using split half method of statistics. The reliability coefficient was "r" value was 0.83 and psychological change tool "r" value was 0.85, which signifies the value is greater than 0.7 hence the tool found to be reliable. Twenty five experts did the content validity of the tool. These experts were selected from various fields based on scope of the study. Based on the power analyses the minimum samples size was 45 based on the severity of PUBG addiction; the researchers included the 61 out of initial survey of 150 students playing PUBG six months back for the current study. Because among 150 samples 61 were prone and defiantly addicted to PUBG. Snowball sampling technique was adopted to select the samples. Self administration of data collection method was exercised to administer the PUBG addiction test (PAT) and assessment of psychological changes tool. The data was analysed using descriptive and inferential statistics which included frequency, percentage and chi-square test to find association.

Conceptual Framework:

Nursing science is profoundly entwined in the body of knowledge that is required for nursing research and practise. The development and recognition of nursing-specific concepts and theories are required to identify this knowledge base.

The Theory is characterised as a set of specified ideas and assertions that present a view of the phenomenon and can be used to characterise, interpret, predict, and control it. A notion is a complex mental framework that is derived from an object, property, or event. based on personal perception and perspective A framework for a study is an abstract, theoretical foundation that allows the researcher to connect the results to the body of knowledge in nursing. The process of conceptualization is the formation of theories that use and form a conceptual framework for a specific research.

A conceptual framework is a collection of interconnected ideas or abstractions that are arranged in some logical order based on their importance to a common theme. Each conceptual framework offers a unique perspective on metaparadigm ideas, including consistent descriptions of variables,

suggestions for how to conduct the research, and guidance for interpreting and integrating the important data.

The purpose of this study was to look at PUBG addiction and its psychological effects on junior college students. The current study's conceptual framework was built around Irvin Rosenstock's Health Belief and Health Behavior Model (1974).

Rosenstock's Health Belief and Health Behaviour Model addresses the relationship between a person's beliefs and behaviours.

Component 1: Individual perceptions of the susceptibility of an illness

Perceived susceptibility to disease and disease severity are the first two components. Perceived susceptibility is a person's estimation of their probability of developing a disease. The term "perceived severity" refers to one's assessment of the seriousness of a condition and its effects.

Individual perceptions of a student playing PUBG and the physical, psychological, and social consequences are examined in this research.

Component-2: Modifying factors

Individual perception is influenced and modified by demographic variables, structural variables and socio-psychological variables, perceived threat of disease and cues to action.

The modifying factors in this study included:

- Demographic variables such as age, gender, class, stream.
- Structural variables such as PUBG addicted student.

The perceived addiction test and the variables are measured using a PAT test and psychological status test.

Cues to action

In this study, some methods told to avoid playing PUBG, stay busy in outdoor activities, use less mobile, use other hobbies

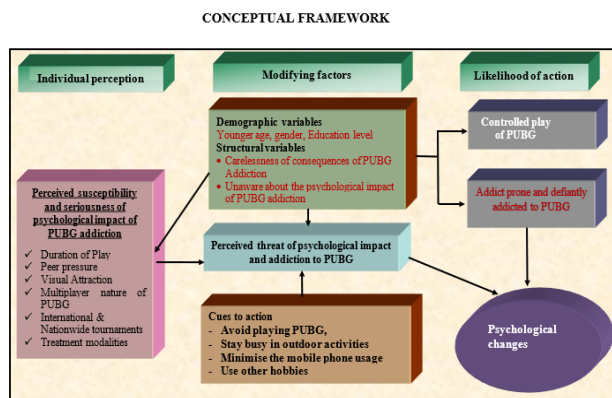


Figure 1: Conceptual Framework on PUBG Addiction and impact on psychology based on Irvin Rosenstock's Health Belief and Personal Health Behaviour Model (1974)

Result and Discussion:

The interpretation of the analysis was discussed under 3 sections which included the description of demographic data, description of PUBG addiction and description related to psychological changes among the addicted students and the association between the level of PUBG addiction and demographic variables.

SECTION I: Interpretation of demographic data

Deals with analysis of demographic data of the junior college students studying in Sangli, Miraj, and Kupwad corporation area in terms of frequency and percentage.

Table no 1: Frequency and percentage distribution of the junior college student playing PUBG before six months.

n=150

SN	Variable	Groups	f	%
1	Age (in years)	16	35	23.33
		17	65	43.33
		18	45	30
		19	5	3.33
2	Study Class	11	66	44
		12	84	56
3	Category	Arts	38	25.33
		Commerc e	41	27.33
		Science	71	47.33

The above table and following figure shows that, in the study,

- According to the age of the junior college students studying in Sangli, Miraj and Kupwad corporation area, age of 17 years 43.33% (65) shows the highest involvement whereas 30%(45) from age of 18 years and 23.33% (35) are from age of 16.
- According to the study class of the junior college students, 56% (84) of students from class 12th standard and 44% (66) are from 11th.
- According to the category of the junior college students 47.33% (71) students from the science faculty. 27.33% (41) from the commerce faculty and 25.33% (38) of them were from arts faculty.

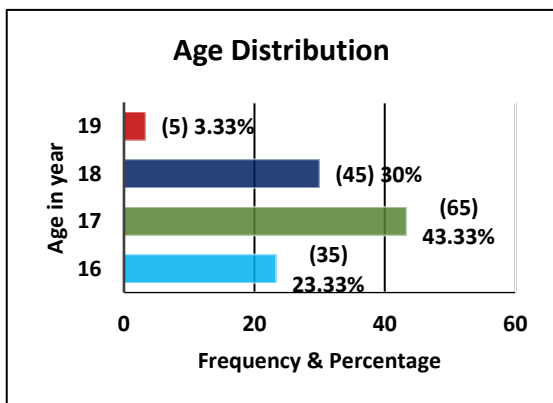


Figure 2: Age distribution of Students studying in junior college

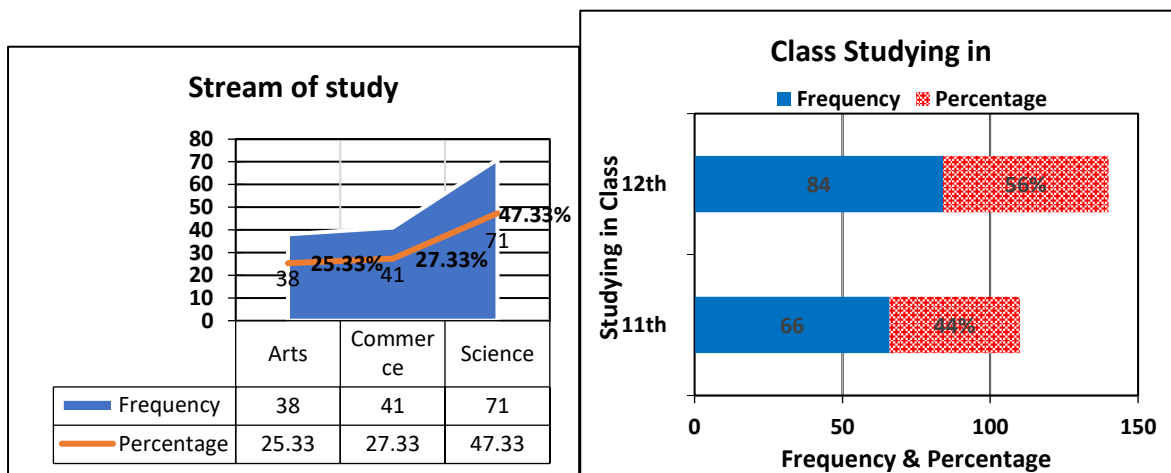


Figure 2& 3: Class Studying and Stream of Students studying in junior college

SECTION II: A) Interpretation of PUBG addiction

Deals with analysis of data related to assessment of the level of PUBG addiction among junior college students.

Table no 2: Level of PUBG Addiction among students

n=150

PUBG ADDICTION

Level of Addiction	f	%
Low	18	12
Average	71	47.33
Prone addictive	51	34
Defiantly addictive	10	6.67

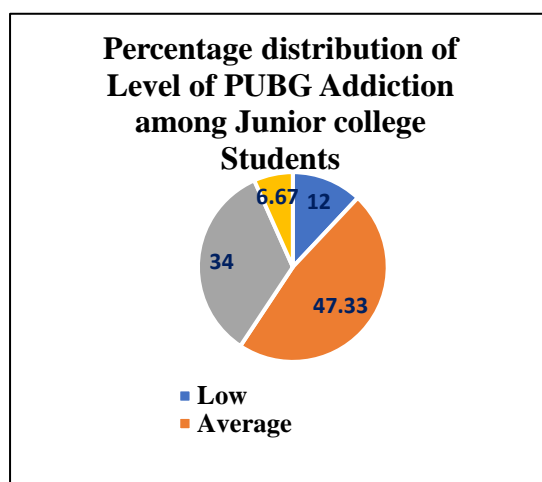


Figure 4: Percentage distribution of Level of PUBG Addiction among Junior college Students.

- Table no 2 and Figure 4 depicts the level of PUBG addiction among 150 surveyed samples. The findings revealed that 6.67% (10) were defiantly addictive and 34% (51) were addict prone. Whereas 47.33% (71) of subjects had an average and 12% (18) had a low level of addiction. Among the players, no one was in the minimal/no level of addiction category.
- The samples classified into the low and average category of PUBG addiction are called as regular players but not in the addictive category. Whereas the addict prone and defiantly addictive are considered strongly to be addictive in nature. The subjects who fall in the addictive category (addict prone and defiant) were considered for assessing the psychological impact. The power analysis of sample size calculation reveals that minimum of 45 addicted students must be included to assess the psychological impact.
- The similar findings have been shown in the comparative study conducted by Lancy D’Souza¹ and Penpa Dolma Extent of PUBG Addiction among Indian and Tibetan Students shows that after surveying 272 samples of Indian and Tibetan students 36.4%(59) were addict prone and 6.2%(10) were defiantly addict in Indian samples. The study from Tibetan samples 37.3% (41) were addict prone and 10%(11) were in defiantly addict¹².

SECTION II B): Interpretation of component wise psychological change

Deals with analysis of data related to Component wise psychological changes among students addicted to PUBG in terms of frequency and percentage.

Table no 3: Frequency and percentage distribution of component wise psychological change n=61

SN	Component	Level of change	f	%
I	Concentration and focus	Minimal (5-7)	9	14.8
		Mild (8-10)	26	42.6
		Moderate (11-12)	20	32.8
		Severe (13-15)	6	9.85
II	Attention	Minimal (6-8)	9	14.74
		Mild (9-12)	27	44.26
		Moderate (13-15)	25	40.98
III	Sadness	Minimal (9-13)	16	22.23
		Mild (14-18)	31	50.82
		Moderate (19-22)	13	21.31
		Severe (23-27)	1	1.639
IV	Anxiety	Minimal (10-14)	13	21.3
		Mild (15-20)	33	54.1
		Moderate	15	24.6

		(21-25)		
V	Anger	Minimal (4-6)	17	27.86
		Mild (7-8)	16	26.22
		Moderate (9-10)	16	26.22
		Severe (11-12)	12	19.67

- In assessment of the concentration and focus skills scores, 9,85% had a severe psychological impact, 32.8% had a moderate , 42.6% had a mild and 9.85% students had minimal psychological impact.
- In assessment of the attention scores, 40.98% had a moderate psychological impact, 44.26% had a mild and 14.74% students had a minimal psychological impact.
- In assessment of the sadness scores, 1.63% had severe psychological impact, 21.31% had moderate, 50.82% had mild and 22.23% students had minimal psychological impact.
- In assessment of the anxiety scores, 24.6% had moderate psychological impact, 54.1% had mild and 21.3% students had minimal psychological impact.
- In assessment of the anger scores, 19,67% had severe psychological impact, 26.22% had moderate, 26.22% had mild and 27.86% students had minimal psychological impact.
- Craig A Anderson An updated meta-analysis shows that exposure to violent video games is largely associated with increased aggressive behaviour, aggressive cognition, aggressive emotions and cardiovascular arousal, and a decrease in supportive behavior⁹.

SECTION III: Interpretation of association between levels PUBG addiction and Psychological change

Deals with analysis of data related to the association of PUBG addiction with psychological impact among junior college students.

- The level of PUBG addiction was not significantly associated with the psychological change at the obtained value of $\chi^2 = 0.63$ and $p = 0.72$. The obtain p value of components were greater than 0.05 hence it is not significantly associated.

- The observation result of PUBG addiction and its impact on overall psychological components suggested that no subjects were observed to have severe overall psychological change with prone and defiantly addict level of PUBG addiction. In moderate psychological change there were 16 sample in prone addicted and 03 sample in defiantly addicted. Whereas majority 25 of prone addicted students had mild psychological change and defiantly addictive students of 06 had mild psychological change.
- This study observations regarding the impact of PUBG addiction showed that playing the virtual game has mild to moderate psychological changes and the chances are predicted to be worsen the situation. Which may be an alarm to take necessary precautions to avoid the psychological adversities among the players.

Table No 4: Association of PUBG addiction and psychological changes.

n=61

Addiction Level	Psychological changes				X ²	df	p value
	A (f)	B (f)	C (f)	D (f)			
Prone addictive	10	25	16	0	0.63	2	0.72
Defiantly addictive	1	6	3	0			

*A= Minimal, B=Mild, C=Moderate, and D= Severe

Conclusion:

This study showed the samples from various age groups are addicted to PUBG with vivid psychological changes. By surveying it shows the school going student are also playing PUBG for an excessive amount of time. Although PUBG is banned in-country; the students are playing by using different servers other than the banned server. And if this craze of PUBG continues it may affect the mental health of youngsters at worst states and hence the awareness must be created among youngster to prevent social damage and county at large. The Psychiatric nurses has an important role to adopt the teachings and educating the scientific information related to PUBG and its

consequences on the psychological health of students. The nurses come across with such scenario at the practice the nurses can encourage to play outdoor games, as it increases physical stamina and fitness. There should be in-service education program for nurses as to make them aware of PUBG and its impact among the younger population. At the community level the awareness can be created by individual and mass health education.

The similar study at large scale can be planned to elicit more precise and comprehensive findings related to the impact of PUBG game and psychological deviations

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Conflict of Interest:

No conflict of interest involved.

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