

## **Analyzing the Physiological and Sociological Effects of Pubg: A Comparative Perspective**

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### **ABSTRACT**

*One of the maximum famous multiplayer on-line video games withinside the global is participant unknowns battlegrounds (PUBG) and this sport is particularly not unusualplace amongst young people and younger adults. As the terrible fitness outcomes of it had been questioned, there's an rising frame of proof that portrays a greater delicate photo regarding its bodily fitness consequences. The goal of the studies paintings beneathneath attention is to study the physiological and sociological differences among the college students, who're game enthusiasts and non-game enthusiasts of PUBG. This survey turned into primarily based totally on quantitative studies design, wherein it centered college students of Army Public Schools (APS) in Rawalpindi, Pakistan. The college students who participated withinside the examine had been selected at random and blanketed one hundred college students (50 college students of sophistication 9th (25 PUBG gamers and 25 non-PUBG gamers) and 50 college students of sophistication 10th (25 PUBG gamers and 25 non-PUBG gamers) who have been selected with the aid of using the researcher. The examine final results indicates that a good sized distinction among PUBG gamers and non-PUBG gamers exists in phrases of the physiological and sociological wellness. The consequences of the studies provide an perception this is beneficial with regards to the results of PUBG gaming at the physiological and sociological well-being of college students. The findings may be used to recommend educators, dad and mom and coverage makers with worries on whether or not it's far viable to mild the leisure price of gaming with the feasible risks. This have a look at will tell interventions in an effort to assist enhance the fitness, educational achievement, and social and bodily health of college students with the aid of using setting up the disparities among game enthusiasts and non-game enthusiasts.*

**Keywords:** *PUBG Game on-line, Physiological Health, Sociological Health, Students.*

### **INTRODUCTION**

Online gaming in recent times is an unavoidable detail of the kids way of life withinside the virtual age. Out of the massive institution of multiplayer video games, Player Unknowns Battlegrounds (PUBG) has received reputation in each nook of the arena due to the exceedingly interactive, competitive, and immersive nature of the sport. Having been launched in 2017, PUBG has drawn tens of thousands and thousands of gamers globally and became a titan withinside the gaming industry. The hype of PUBG, mainly withinside the young adults and younger adults, has added each possibilities and challenges. It presents entertainment, teamwork, and hassle-fixing reports on the only hand and has evolved demanding worries on its impact at

the physiological fitness and sociological behaviour of gamers however due to its immoderate use (Kuss and Griffiths, 2017).

Physiological consequences are the alternate withinside the regular functioning of the frame because of sure sports or behavior. PUBG is one of the on-line video games that takes immoderate hours sitting earlier than the display and this may bring about a sedentary lifestyle. Long gaming classes had been related to eye, again pain, neck pain, obese, low sleep quality, and musculoskeletal disorders (King et al., 2019). Moreover, research imply that an excessive amount of online game gambling can cause the frame to adversely reply to the stressor (elevated coronary heart rate, blood pressure, and cortisol levels) (Lemola et al., 2011).

The equal studies has been performed on scientific college students recently, with the findings additionally displaying that non-stop gaming on PUBG changed into related to monophobia (the concern of now no longer having a cell phone) and physiological stress, together with dangerous affects on nerve conduction speed and hand-eye coordination (Al-Khalifa et al., 2020). These effects suggest that PUBG does now no longer simplest reason leisure, however additionally a hard and fast of sports with an goal end result at the human frame withinside the occasion of immoderate play. Therefore, the physiological issue of gambling the PUBG is important in responding to the viable risks to the fitness of younger people.

Other than the physiological results attributed to PUBG, it has were given fundamental sociological results. It is said that video video games, specially violent video games like PUBG, result in aggression, impulsivity, and social withdrawal (Anderson et al., 2010). Pakistanese research have additionally observed that the dependancy to PUBG is undoubtedly associated with aggression and social isolation and negatively to empathy, prosocial behavior, and educational overall performance (Khan et al., 2021).

The addictive man or woman of PUBG has a tendency to preserve college students on the sport too long, for that reason removing time in learning, doing assignments, and different extracurricular sports. A examine performed in Lahore and Swat districts discovered that the scholars with extra hours spent in PUBG had worse grades, disrupted sleep patterns, incapability to pay attention, and worse lecture room overall performance (Shabir et al., 2022). The PUBG gamers, of their social thing, have a excessive possibility of displaying withdrawn behaviors, verbal exchange limitations with the family, and bad interpersonal relationships (Saleem et al., 2021). These consequences show that there's a sturdy necessity to discover the general social and academic influences of PUBG gaming.

Despite the truth that some of researches had been carried out so as to research the destructive effect of on line video games, just a few of them have addressed the hassle in a comparative way juxtaposing the reviews of PUBG gamers and people who aren't gamers of the sport. A comparative technique is tremendous in that it permits the researcher to distinguish among troubles which might be immediately associated with gaming and those which can be suffering from different outside events. An instance is that once evaluating game enthusiasts and non-game enthusiasts, physiological elements like eye pressure, sleep disturbance or cardiovascular pressure may be higher assessed. In the equal way, aggression, social isolation, and educational overall performance are examples of sociological variables that can be higher illuminated with the aid of using evaluating them withinside the groups (Granic et al., 2014).

Because of the excessive recognition of PUBG in Pakistan, and the developing anxieties amongst parents, teachers, and fitness professionals, this paper ambitions to provide a complete assessment of the consequences of the sport. It covers physiological and sociological regions as a consequence the studies isn't always as constrained because the beyond research which tended to pay attention on handiest one of the aforementioned factors, both intellectual or instructional overall performance. In addition, the

comparative thing of this examine ensures that the variations among PUBG gamers and non-gamers are emphasized, which give greater credible proof in phrases of interventions and cognizance campaigns.

### **Objectives of the Study**

1. To study the physiological final results of on-line PUBG sport the various whoplay and who do now no longer play PUBG representatives.
2. To look at the sociological affects of PUBG recreation amongst the sport gamers and non-gamers.

### **LITERATURE REVIEW**

Digital gaming has grown to end up an indicator of the younger grownup culture. One of the maximum a success video games is Player Unknown's Battlegrounds (PUBG), a battle-royal sport that may be defined with the aid of using the usage of its practical graphics, on line social interactions, and aggressive gameplay. Research factors to the reality that on line video games can also additionally have an effect on now no longer simplest physiological processes (ex: sleep, stress, musculoskeletal health) however additionally sociological ones (ex: aggression, social connectedness, and educational performance) (Kuss and Griffiths, 2017). Due to the recognition of PUBG in South Asia, wherein Pakistan isn't an exception, its effect is actively studied each regionally and at the global level.

### **Physiological Effects of PUBG**

Physiological impacts of video gaming generally emerge from prolonged sedentary behavior, high sensory stimulation, and repetitive physical strain. Research indicates that extended gaming is associated with eye strain, headaches, musculoskeletal discomfort, poor posture, and sleep disturbances (King et al., 2019). Competitive games like PUBG can also activate the sympathetic nervous system, leading to elevated heart rate, blood pressure, and cortisol levels, mimicking stress responses (Lemola et al., 2011).

An evaluation of cell game enthusiasts has proven that the lengthy PUBG periods brought about sleep issues and reduced bodily activity, which has implications in phrases of lengthy-time period fitness and well-being (Khan et al., 2021). A distinct studies of clinical college students has observed the PUBG dependancy to be related to nomophobia and slowed nerve conduction velocity, indicating quantifiable consequences at the frightened system (Al-Khalifa et al., 2020). These outcomes emphasize that PUBG isn't always handiest a recreation however may be related to actual physiological costs in case of immoderate use.

### **Sociological Effects of PUBG**

In addition to physiology, PUBG influences social existence and educational lifestyles. Many studies papers partner violent or aggressive video video games with more stages of aggression and empathy (Anderson et al., 2010). PUBG dependancy is likewise observed to are expecting the expanded aggression in Pakistan, and the connection is mediated through social connectedness (Iqbal et al., 2021). This means that the detrimental behavioral results of immoderate gaming are expanded with the aid of using weaker interpersonal relationships.

Moreover, PUBG has been associated with bad overall performance in school. School and university surveys in Khyber Pakhtunkhwa confirmed that excessive PUBG intake become related to much less educational overall performance, loss of study room engagement, and absences (Shabir et al., 2022). It has additionally sociologically been related to own circle of relatives conflict, isolation amongst peers, and

communicate gaps, which in addition contributed to the deterioration of social well-being (Saleem et al., 2021). On the other hand, having little publicity to PUBG has additionally been related to teamwork, the capability to make rapid selections and relieve stress, which factors to the complexity of the sociological consequences thereof (Granic et al., 2014).

### **Comparative Perspectives**

Although more than one research has proven the destructive connotations of PUBG, now no longer lots of them take a comparative stance among the gamers and the non-gamers. The blessings of comparative designs are that they may convey to the fore the wonderful variations that may be attributed to gaming and now no longer to any trendy way of life or cultural influences. As an example, comparative studies in South Asia has found out that PUBG gamers diagnosed a more stage of aggression and poorer educational consequences than the non-game enthusiasts (Khan et al., 2021). On the equal note, cross-sectional research discovered large variant in sleep high-satisfactory and social connectedness among the PUBG gamers and non-gamers (Shabir et al., 2022).

These findings provide an explanation for that comparative methodologies offer higher evidence, due to the fact they're capable of discover sure hazard or resilience styles in the populace of PUBG users. That additionally coincides with global literature, wherein difficult game enthusiasts are always worse in fitness and social overall performance than folks that do now no longer play or folks who play casually (Kuss & Griffiths, 2017).

## **METHOD AND MATERIAL**

### **Research Design**

This study utilizes comparative research design for comparing a PUBG players and Non PUBG players through survey method. To investigate impact of the PUBG game on students physiological and sociological wellbeing, this survey study utilizes a quantitative research approach.

### **Population of the Study**

The population of this research study comprised students of all Army Public Schools in Rawalpindi City. A total of 25 Army Public Schools are in Rawalpindi District, with the total students, studying in these schools comprised of about 7000.

### **Sampling and Sampling Size**

The researcher used a convenient sampling strategy, which entails choosing individuals based on their availability and desire to participate, with a specific focus on students in grades 9 and 10. A total of 100 students, 10 from each school who used to play PUB G were the sample for the study. 10 students from each school divide into 5 those who play PUBG game and 5 those who did not play PUBG game.

### **Tools for Data Collection**

In the current study, the researcher has made self-made questionnaire for analyzing involvement of students in PUBJ game (PUBJQ) and obtained the results of the students to assess their academic performance.

### **Statistical Analysis**

For data analysis, the researcher has used SPSS-25 version. In the present study, both the descriptive and inferential statistics were used. Descriptive statistic was used to describe the characteristics of each participants. While, inferential statistic has followed to analyze the effects of PUBG game on students physiological and sociological wellbeing.

### Descriptive Statistics

**Table. 1** *Descriptive Result of the Participants*

Class of respondents	PUBG Player	Non-PUBG Player	Total
9 <sup>th</sup>	25	25	50
10 <sup>th</sup>	25	25	50
Total	50	50	100

Table. 1 presents the overall frequency of total respondents. According to table total number of respondents participated in this study were 100. The number of PUBG players were 50, 25 students from 9<sup>th</sup> class and 25 from 10<sup>th</sup> class. The number of non PUBG players were 50, 25 students from 9<sup>th</sup> class and 25 from 10<sup>th</sup> class.

### Testing of Hypothesis

**H<sub>A1</sub>:** Significant difference exists between PUBG players and non-PUBG players with reference to physiological wellbeing.

**Table. 2** It shows the difference between PUBG gamer and non-gamer in respect of Physical impact

Variable	PUBG	N	Mean	Std. Deviation	Std. Error Mean	t	Sig.
Physiological Impact	Gamers	50	2.7467	.54005	.07637	-2.160	.033
	Non-gamers	50	3.0100	.67210	.09505	-2.160	.033

The table compares the physiological impact scores of PUBG gamers and non-gamers. The descriptive results show that non-gamers ( $M = 3.01$ ,  $SD = 0.672$ ) reported a higher mean score on physiological impact compared to gamers ( $M = 2.74$ ,  $SD = 0.540$ ). The independent samples t-test value (-2.160) with a significance level of .033 ( $p < 0.05$ ) indicates that this difference is statistically significant. This means that the physiological impact differs meaningfully between the two groups. Since non-gamers scored higher, it suggests that non-gamers experience greater physiological impacts than gamers in this study sample. The negative  $t$  value reflects the direction of the difference (gamers having a lower mean score).

**H<sub>A2</sub>:** There is significant difference between PUBG players and non-PUBG players with reference to sociological well-being.

**Table. 3** It shows sociological difference between PUBG's gamers and non-gamers

Variable	PUBG	N	Mean	Std. Deviation	Std. Error Mean	t	Sig.
Sociological Impact	Gamers	50	3.3240	.50933	.07203	1.013	.314
	Non-gamers	50	3.2040	.66546	.09411	1.013	.314

The results compare the sociological impact scores between PUBG gamers and non-gamers. The findings show that gamers ( $M = 3.32$ ,  $SD = 0.509$ ) reported a slightly higher mean sociological impact than non-gamers ( $M = 3.20$ ,  $SD = 0.665$ ). However, the independent samples t-test value ( $t = 1.013$ ) with a significance level of .314 ( $p > 0.05$ ) indicates that this difference is not statistically significant. This means that although PUBG gamers appear to have marginally higher sociological impact scores than non-gamers, the difference is too small and could have occurred by chance. In other words, there is no meaningful difference in sociological impacts between PUBG gamers and non-gamers in this sample.

## CONCLUSION

Based on the analysis of the collected data and the findings of the research conducted on the impact of PUBG game on the physical and social health of the students. The tile of this study was to analyze the physiological and sociological effects of PUBG game. The 1<sup>st</sup> finding of the study revealed that there is no significant difference between PUBG gamers and non-gamers of the schools. It means that doubtlessly the PUBG sport does now no longer have a extremely good have an effect on at the physiological fitness of the gamers. In the 2d end result of the studies, it additionally verified that, statistically substantial sociological distinction exists among on-line PUBG gamers and non-gamers. It means that gambling PUBG sport does now no longer bring about a bad have an impact on on social factors of college students who play on-line PUBG recreation on a everyday basis. It means that despite the fact that PUBG sport play does now no longer have a giant effect at the socialization and dynamics of college students, extra troubles like physiological and mental welfare can have an effect on the educational consequences to a extra extent.

Finally, the observe of the impact of the PUBG sport on bodily and social country of college students additionally brings out the intertwined nature of the physiological and sociological wellbeing. Although physiological and sociological dimensions may not be motivated notably via way of means of the PUBG sport play, the studies underlines the importance of the holistic health of college students in phrases in their wellknown fitness. Such outcomes imply a similarly take a look at and attention of the ability results of gaming withinside the instructional fitness and the health of college students in fashionable.

## DISCUSSION

The number one goal of the studies is to evaluation among the PUBG and non PUBG gamers in phrases of ways PUBG impacts the educational and health of college students (bodily wellness, social well-being and mental well being). Nevertheless, the prevailing studies consequences imply that no significant disparities exist among the bodily wellness of the those who play PUBG and people who do now no longer play it. It suggestions that the bodily fitness of the college students, who play on line PUBG sport on a everyday basis, may not be adversely laid low with its activities. The identical locating likens to the locating of Shivani, Monika, and Anurag (2022), which has checked out the bodily fitness results of gaming greater



widely yielded various effects. Whereas the literature suggests that there are relationships among sedentary gaming and fitness troubles which include obesity, there are research which have now no longer been capable of reveal the causal relationships and that plenty of game enthusiasts stability sedentary conduct with energetic behaviors.

On the comparison, a observe carried out a studies have a look at which observed out that extended gaming is connected to eye strain, headaches, musculoskeletal discomfort, negative posture, and sleep disturbances (King et al., 2019). Equally, numerous researchers have hooked up that aggressive video games inclusive of PUBG might also stimulate the sympathetic anxious device and purpose surges withinside the coronary heart rate, blood pressure, and cortisol release, which resemble the pressure responses (Lemola et al., 2011). Moreover, one of the researchers found that long-time period PUBG classes have been related to sleep disturbance and absence of exercise, which has capability destiny outcomes on long-time period fitness and health (Khan et al., 2021). A special observe that became carried out on clinical college students confirmed that PUBG dependancy became related to nomophobia and decreased nerve conduction velocity, which means that it may have quantifiable outcomes at the fearful gadget (Al-Khalifa et al., 2020). These findings emphasize that PUBG isn't always best recreational, however could have actual physiological fees while uncovered to immoderate gambling.

The paintings of Maria Waris Nawaz et al (2020) at the impact of PUBG recreation dependancy confirmed that on-line video games, along with PUBG, can undoubtedly have an effect on the improvement of social capabilities and interactions among gamers in spite of the tremendous assumptions. The researchers made the realization that on line gaming can be used to beautify social ties and conduct, in addition to decrease the narcissistic conduct and isolation amongst game enthusiasts. One of the research tested the reality that PUBG impacts social interactions and look at life. Various researches companion violent or competitive video video games with developing being violent and dropping empathy (Anderson et al., 2010). Moreover, one of the research in Pakistan observed that the dependancy to PUBG predicts the extended chance of aggression, and the social connectedness in part mediates the correlation (Iqbal et al., 2021). However, cutting-edge studies consequences suggest that the distinction withinside the sociological effect on gamers and non-gamers of PUBG isn't significant, this means that that gambling PUBG does now no longer have a specifically robust impact on social competencies, interpersonal relationships, or social isolation in contrast with the ones gamers who do now no longer play the recreation. These opposing outcomes reveal the multifacetedness of learning the social effect of on-line gaming and the need of extra research to deal with in a entire manner the style of outcomes of gaming on social conduct.

### **RECOMMENDATIONS OF THE STUDY**

1. Time control techniques must be embraced through college students and younger gamers to make sure that they do now no longer ought to spend an excessive amount of time at the display screen and stability gaming with educational or private commitments.
2. Education packages want to enlighten the game enthusiasts of capability physiological instances like eye tension, sleep deprivation, and fatigue and weight problems because of prolonged gaming.
3. Sporting sports like exercises, out of doors video games and health clubnasium sports need to additionally be promoted as a manner of preventing a sedentary life-style related to overuse of PUBG.

4. The want to speak in a deferential manner, to paintings as a team, and now no longer to be poisonous or abusive in on-line systems ought to be emphasised for the duration of the schooling packages.
5. Colleges and universities are to provide counselling offerings to college students who've a gaming addiction, are stressed, or socially remoted due to PUBG.
6. Parents and instructors have to take a look at the sport play conduct of the youth, teach them on wholesome and secure gaming, and inspire them to apply their time productively.
7. PUBG ought to be marketed as a manner of unwinding, calming down, or entertainment, now no longer a alternative to every day tasks.
8. The long-time period physiological and mental effect of PUBG need to be tested in destiny classes to provide more insights and evidence.
9. Awareness consultation at the secure and accountable use of virtual video games and social media must be a part of colleges and colleges.
10. The authorities have to enforce clean suggestions to healthful e-gaming consisting of time restrictions, age limit and growing awareness..

#### **Conflict of Interest**

The researcher reports no conflicts of interest.

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