

## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

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### ABSTRACT

Among online gaming applications, PUBG is gaining popularity day by day. The present study aimed to compare the extent of PUBG addiction among Indian and Tibetan students. The sample consisted of a total of 272 individuals playing PUBG of which 162 were Indian students and 110 were Tibetan students. The respondents completed PUBG addiction test (PAT) developed by D'Souza, Manish, and Deeksha (2019) in one session. PAT measured addiction in 7 factors— disengagement, lack of control, excessive use, obsession, distress, escapism, and over-enthusiasm & impulsive use. The data were analyzed using the Chi-square test for the extent of usage of PUBG by Indian and Tibetan students and Two-way ANOVA was employed to find out the influence of country and gender on various components of PAT. Results revealed that 7.7% of the total sample selected was definitely addicted to PUBG, 36.8% of them were addict prone. Tibetan students were more addicted to PUBG than Indian students. In most of the components and total PUBG scores, Tibetan students had higher scores than Indian students. In the escapism component of PAT, female students of India had higher scores, whereas, among Tibetan students, male students had higher escapism.

**Keywords:** *PUBG addiction*

These days, Internet gaming addiction is widespread across the world irrespective of the developmental stage of individuals. Gaming addiction or disorder is portrayed by the desire of the individual to play computer games for a sufficiently long time. This may influence the daily schedule of the individual, alongside poor execution in studies, unable to satisfy the needs in occupation, different territories of significant working and aggravations in family relations. Today, PUBG game is more widespread and many are into this game as an individual player or playing in pairs or in groups. PUBG is created by Chinese publisher Tencent Games, PUBG it was first launched in December 2017 on gaming consoles and then in March 2018 on smartphones. In each round, PUBG parachutes 100 players on to a virtual island where teams of four fight one another to death till only one of them is left alive. The game has already been downloaded over 100 million times on Google Play Store. This game

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## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

is played by individuals from all developmental spans, and even gender is not spared. Unfortunately, few people who regularly play this game are addicted, which has brought lot of concern regarding addiction to PUBG and its ill effects (D'Souza, Samyukta, & Meshak, 2019). World Health Organization has identified gaming disorder as a major problem and added in ICD-11 classification, where it leads to many disorders due to use of substance or addictive behaviours with a code 6C51 (WHO, 2018).

Though there are no studies available regarding the prevalence of PUBG addiction and its effects, few of the studies on other gaming addictions have revealed the following. According to Yarasani, Shaik and Myla (2018), after studying gaming addiction among medical students, It has come to the conclusion that gaming addiction leads to psychosocial disturbances, anxiety, depression, mood disorders, sleep disturbances, headache, lack of Involvement in social activities, and impairment in education. Caplan (2007), reported cognitive impairment among video game addicts. Other studies have revealed mood disorders, anxiety, cravings for gaming, kleptomania loss of interest due to gaming addictions (Kim & Davis, 2009; Liu & Peng, 2009; Stetina, Kothgassner, Lehenbauer & Kryspin-Exner, 2001), decreased academic achievement (Hawi, Samaha, & Griffiths , 2018), impulsivity and compulsivity (Zhou, Zhou, & Zhu, 2016).

In the present study, an attempt is made to find out the prevalence of PUBG addiction among students who were pursuing their education in non-professional courses. The study further attempts to compare the extent of PUBG addiction among Indian and Tibetan students. It is hypothesized that the PUBG addiction however, differs in its extend among the Indian and the Tibetan students.

## METHOD

### *Sample*

The authors selected 272 PUBG players who were actively playing PUBG game (162 Indian and 110 Tibetan) who were studying their graduation and post-graduation courses in Arts, Science, and management. The Tibetan students were mostly selected from Dalai Lama Institute of Higher education, Sheshagirihally, Hejjala, Bengaluru South, and few from Mysuru, and Indian students were selected from the city of Mysuru. Their age varied from 18 to 26 years, with the average age of  $20.88 \pm 2.16$  years.

### *Tool employed*

#### **PUBG Addiction Test (PAT): D'Souza, Manish & Deeksha (2019)**

To measure the extent of PUBG addiction, PAT, developed by D'Souza, Manish and Deeksha in the year 2019 consisting of 34 statements was employed. PAT measured PUBG addiction of the individual in 7 components, which included 7 factors- disengagement, lack of control, excessive use, obsession, distress, escapism and over-enthusiasm & impulsive use. Lack of control, Disengagement, Escapism, Health and interpersonal troubles, Excessive use, and Obsession. PAT should be answered in the 5-point Likert scale, like strongly disagree to strongly agree. The scores range from 5 to 1, assigned like –Strongly agree (5), agree (4), can't say (3), disagree (OW), and strongly disagree (1). To find out the reliability, the Cronbach's reliability test was done and the alpha value obtained for the total inventory was 0.912 and for various components varied from .501 to 0.822. Further, when the item to total scores correlations was performed; all the correlation coefficients obtained through Pearson's product moment correlation techniques were found to be highly significant,

## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

indicating that the PAT has high reliability and validity. Even the correlation coefficients obtained between components were found to repetition. High scores on the PAT indicate higher addiction to PUBG game.

### **Procedure:**

The authors collected data through manual forms meant for PUBG addiction. The second author collected data from Tibetan students. The respondents were assured the confidentiality and were asked to answer all the questions honestly. The respondents were given proper instructions and explained the questions in case of doubts. The authors received in a total 272 completely filled questionnaires. Once the data were collected, they were scored and fed to the computer. The data were analysed using Chi-square test and two ways ANOVA. Chi-square test was applied to find out the association between country and levels of PUBG addiction. Two-way ANOVA was employed to find out the influence of country and gender on various components of the PAT. Table 1 provides the results of the distribution of levels of addiction by country and results of test statistics. The table also displays the Mean scores of male and female students from India and Tibet on various components of PUBG and results of 2-way ANOVA

**Table 1, Distribution of the selected sample by country and levels of PUBG addiction and results of chi-square tests**

Levels of PUBG addiction		Country		Total
		India	Tibet	
No/minimal	Frequency	0	1	1
	Percent	0.0%	0.9%	0.4%
Low	Frequency	5	18	23
	Percent	3.1%	16.4%	8.5%
Average	Frequency	88	39	127
	Percent	54.3%	35.5%	46.7%
Addict prone	Frequency	59	41	100
	Percent	36.4%	37.3%	36.8%
Definitely addict	Frequency	10	11	21
	Percent	6.2%	10.0%	7.7%
Total	Frequency	162	110	272
	Percent	100.0%	100.0%	100.0%
Test statistics		Overall $X^2_{(4)} = 226.16; p = .001$		
		Association = $X^2_{(4)} = 21.381; p = .001$		

On the whole, we find that 7.7% of the total sample was definitely addicted to PUBG, 36.8% of them were addict prone, 46.7% of them were average users, 8.5% of them were low-end users and remaining 0.4% of them were minimal users of PUBG. Chi-square test revealed a significant difference for frequencies of various levels of addiction ( $X^2 = 226.16; p = .001$ ), where we find that the majority of the sample had average and addict prone to PUBG. Further, when the addiction levels were compared across Indian and Tibetan students, chi-square test revealed a significant association ( $X^2 = 21.381; p = .001$ ) revealing that Tibetan students were more addicted to PUBG than Indian students.

Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

Table 2, Mean scores of male and female students from India and Tibet on various components of PUBG and results of 2-way ANOVA

Country	Gender	Components of PAT			
		Disengagement		Lack of control	
		Mean	S.D	Mean	S.D
India	Male	17.39	5.25	18.44	4.91
	Female	19.91	2.88	21.27	4.58
	Total	17.56	5.16	18.64	4.93
Tibet	Male	16.89	6.48	16.62	6.40
	Female	16.84	6.97	15.58	6.00
	Total	16.88	6.53	16.44	6.32
Total	Male	17.20	5.74	17.76	5.58
	Female	17.97	5.94	17.67	6.12
	Total	17.29	5.75	17.75	5.63
F (Country) <sub>1, 268</sub>		F=2.385; p=.124		F=11.521; p=.001	
F (Gender) <sub>1, 268</sub>		F=1.144; p=.286		F=0.654; p=.419	
F (Interaction) <sub>1, 268</sub>		F=1.234; p=.268		F=3.042; p=.082	
Components of PAT					
Country	Gender	Excessive use		Obsession	
		Mean	S.D	Mean	S.D
India	Male	9.77	3.14	14.08	3.67
	Female	10.09	2.26	15.82	2.79
	Total	9.79	3.08	14.20	3.64
Tibet	Male	9.21	3.20	11.82	5.23
	Female	8.16	2.63	10.32	3.20
	Total	9.03	3.12	11.56	4.96
Total	Male	9.56	3.17	13.23	4.45
	Female	8.87	2.64	12.33	4.04
	Total	9.48	3.12	13.13	4.41
F (Country) <sub>1, 268</sub>		F=4.012; p=.046		F=21.079; p=.001	
F (Gender) <sub>1, 268</sub>		F=0.342; p=.559		F=0.019; p=.892	
F (Interaction) <sub>1, 268</sub>		F=1.218; p=.271		F=3.693; p=.056	
Country	Gender	Components of PAT			
		Distress		Escapism	
		Mean	S.D	Mean	S.D
India	Male	12.58	3.56	8.70	2.89
	Female	14.36	3.04	11.00	3.92
	Total	12.70	3.55	8.85	3.01
Tibet	Male	13.52	4.39	8.31	3.62
	Female	13.95	4.71	6.74	2.38
	Total	13.59	4.43	8.04	3.48
Total	Male	12.93	3.91	8.55	3.18
	Female	14.10	4.12	8.30	3.63
	Total	13.06	3.94	8.52	3.23
F (Country) <sub>1, 268</sub>		F=0.111; p=.740		F=13.367; p=.001	
F (Gender) <sub>1, 268</sub>		F=1.984; p=.160		F=0.333; p=.565	
F (Interaction) <sub>1, 268</sub>		F=0.742; p=.390		F=9.282; p=.003	

## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

Country	Gender	Components of PAT			
		Overenthusiasm & Impulsive use		Total PUBG scores	
		Mean	S.D	Mean	S.D
India	Male	19.62	4.62	100.58	21.12
	Female	20.64	5.10	113.09	20.26
	Total	19.69	4.64	101.43	21.24
Tibet	Male	20.59	6.76	96.96	30.77
	Female	19.58	6.71	91.16	27.53
	Total	20.42	6.73	95.95	30.19
Total	Male	19.99	5.53	99.21	25.18
	Female	19.97	6.10	99.20	26.97
	Total	19.99	5.58	99.21	25.33
F (Country) <sub>1, 268</sub>		F=0.001; p=.969		F=6.394; p=.012	
F (Gender) <sub>1, 268</sub>		F=0.00; p=1.000		F=0.442; p=.507	
F (Interaction) <sub>1, 268</sub>		F=0.816; p=.367		F=3.284; p=.071	

**Country and PUBG addiction:** Students from India and Tibet differed significantly in their mean scores on lack of control ( $F=11.521$ ;  $p=.001$ ), Excessive use ( $F=4.012$ ;  $p=.046$ ), obsession ( $F=21.079$ ;  $p=.001$ ), escapism ( $F=13.367$ ;  $p=.0010$ ) and in total PUBG addiction scores ( $F=6.394$ ;  $p=.012$ ). In all these components and total PUBG addiction, Tibetan students had higher scores than Indian students. However, in components- Disengagement, distress, and in Overenthusiasm & Impulsive use, Indian and Tibetan students did not differ significantly.

**Gender and PUBG addiction:** When gender wise comparison was done across male and female students, two way ANOVA revealed non-significant differences in all the components of PUBG and in total PUBG addiction scores. In other words, male and female students had statistically similar scores on individual components and in total PUBG addiction.

**Country, Gender and PUBG addiction:** When interaction effects were verified for country and gender for individual components and total PUBG scores, only one of the interaction effect was found to be significant. In the case of escapism component ( $F=9.282$ ;  $p=.003$ ), where we find that among Indian students, female students had higher scores, whereas, among students of Tibet, male students had higher escapism.

## DISCUSSION

### Major findings of the study

- An alarming 7.7% of the total sample was definitely addicted to PUBG, and 36.8% of them were addict prone.
- Tibetan students were more addicted to PUBG than Indian students.
- In most of the components and total PUBG scores, Tibetan students had higher scores than Indian students.
- Among Indian students, female students had higher scores, whereas, among Tibetan students, male students had higher escapism.

As of June 19<sup>th</sup>, 2018, there are 400 million PUBG players everywhere throughout the world. A couple of the actualities uncovered by Shah (2018), showed that PUBG Mobile's season two started in May 2018 and from May to mid-August, 130 million players over 200 nations sought the Chicken Dinner. The most number of players originated from the USA, India, and

## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

Indonesia. PUBG Mobile crossed 100 million downloads on iOS and Android prior this month, just five months after its discharge. Players secured a general running separation of 2,154,947,134,605,703,216 km practically which is comparable to circumventing the earth 54 billion times.

In the present study, it was found that Tibetan students were more addicted to playing PUBG than Indian students. So far, there is no scientific evidence available on this research topic. The possible reasons could be excess of free time at college, inability of understand how to use those free time more constructively, peer pressure, lack of directions in life, absence of proper counselling service on campus at college and etc isolation, frustration, refugee status, etc., which may increase their stress and this, in turn, may prompt them to use PUBG game frequently. The psychological community has defined Video game addiction (VGA) as a unique behavioral addiction which is characterized by excessive or compulsive use of computer games or video games that interferes with an individual's 'routine life. Video game addiction may present itself as compulsive gaming, social isolation, mood swings, diminished imagination, and hyper-focus on in-game achievements, to the exclusion of other events in life (Schivinski, et al, 2018). D'Souza, Samyukta and Meshak (2019) in their study reported an alarming 29.7% of the sample selected was addict prone to PUBG, and 7.4% of the sample studied was definitely addicts. Gender had significant influence over PUBG addiction; female students had higher addiction towards PUBG than male students.

It's very clear that PUBG usage is alarmingly increasing, especially among younger generations, which might lead to psychological problems, reduction in the sleep quality, reduced interpersonal interactions reduced performance in academic activities and so on., For that reason, the very normal development of these PUBG addicted individuals are therefore, affected in their bio-psycho-social spheres. Psychologists, educationists, and policymakers have to seriously plan the strategies to curb the menace of PUBG addiction for a better future of these individuals who are badly affected by PUBG addiction.

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## Extent of PUBG Addiction among Indian and Tibetan Students: A Comparative Study

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### **Conflict of Interest**

The authors carefully declare this paper to bear not a conflict of interests

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