



The Psychosocial Impact of Extreme Gaming on Indian PUBG Gamers: the Case of PUBG (PlayerUnknown's Battlegrounds)

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Online video gaming has become one of the world's most popular leisure time activities among youth (Ballabio et al. 2017; Männikkö et al. 2015). Research has consistently shown that gaming can bring many positive benefits including therapeutic, medical, health, cognitive, and educational benefits (Griffiths 2002, 2019; Nuyens et al. 2019). However, for a small minority, gaming can be problematic and potentially addictive (Kuss and Griffiths 2012; Pontes and Griffiths 2014).

One of the most popular games at the time of writing is *PlayerUnknown's Battlegrounds* (*PUBG*), a “winner-takes-all” team game inspired by the Japanese film, *Battle Royale*. More specifically, in each game, *PUBG* parachutes 100 players on to a virtual island where teams of four fight each other to death until only one team is left alive. It was officially launched in December 2017 and can be played on both gaming consoles and smartphones (Quartz India 2018) and has been downloaded over 100 million times on the *Google Play Store* (Google Play 2019). At present, the game has over 30 million daily active users globally and is very popular in India (Bhattacharya 2019)—the country of focus in the present letter. A 2018 market research survey conducted among 1047 Indian gamers (Quartz India 2018) reported that *PUBG* was the most popular game (62%) followed by the games *Free Fire* (21%) and *Fortnite* (8%).

Despite the popularity of gaming in India, there have been no dedicated studies on the negative psychosocial impact although there have been studies that have included Indian gamers (1) as part of psychometric evaluations of the properties of gaming disorder assessment instruments (e.g., Pontes et al. 2017), (2) in multi-country gaming samples but not including any breakdown of individual country characteristics or variables (e.g., Subramaniam et al. 2016), and (3) as part of studies examining

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problematic internet use and/or Internet addiction but with little or no information on Indian gaming except to say that gaming comprised one of the applications used among those experiencing problematic Internet use (e.g., Srijampana et al. 2014). While there are a few case study accounts of problematic gaming in the medical and psychological literature spanning over 35 years (e.g., Griffiths 2010; Keepers 1990; Kuczmierczyk et al. 1987; Ross et al. 1982; Torres-Rodriguez et al. 2019), there have never been any published cases in the medical or psychological literature involving Indian gamers.

However, based on media reports, case studies of problematic gaming in India have been highly prevalent over the past few months, particularly in relation to *PUBG* gaming. The Indian print media has arguably vilified the game and has attempted to link the game with a wide range of negative psychosocial impacts. Eight very recent cases are highlighted below:

Case 1—Exam failure (source: News18 2019): A young unnamed Indian boy from Karnataka (a southwestern state) who had secured distinction in his Secondary School Leaving Certificate exam allegedly became so addicted to the *PUBG* online game that he stopped studying. In his pre-university Economics exam, all he was able to write was how to download and play *PUBG*. In an interview he said: “I was studious, but got attracted towards *PUBG* as it was entertaining, and soon got addicted to it. Sometimes I even bunked classes to play the game and sat in the nearby garden”.

Case 2—Running away from home (source: India Ahead News, Pundir 2019): A 15-year-old Indian boy (Abhinav Jayant) ran away from his Patel Nagar home in Delhi (north India) on March 11. The boy’s father (Rajeev Kumar Jayant) claims his son was “brainwashed” by his online *PUBG* teammates. A preliminary investigation by the police reported that Abhinav was chatting with someone on *PUBG* and that the most recent messages said he would continue chatting using a different screen name. At the time of writing (April 21), Abhinav had still not returned home.

Case 3—Hospitalization (source: New Indian Express 2019): A fitness trainer from Jammu and Kashmir (a state in northern India) allegedly became addicted to playing *PUBG* and was admitted to the hospital after he started hitting himself after completing one of the rounds and injured himself. The doctors treating him claimed the man was mentally unbalanced and that “his mind is completely under the influence of the ‘*PUBG*’ game.” According to the news report, this was the sixth such case in Jammu and Kashmir. As a consequence, local residents had appealed to Governor Satya Pal Malik to get such “life-threatening” online games banned in both the state and the country.

Case 4—Drinking acid instead of water by mistake (source: Latestly 2019a): A young adult from Chhindwara (in the central Indian state of Madhya Pradesh) was allegedly so engrossed in playing *PUBG* that he drank acid thinking it was a bottle of water. He underwent a successful intestinal operation performed by Dr. Manan Gogia and has since recovered.

Case 5—Suicide attempt (source: Latestly 2019b): In an incident from Nashik (in the northwest region of Maharashtra), a 14-year-old boy, Akash Ostwal, allegedly attempted suicide in a fit of anger by consuming poison after his mother took away his mobile phone because she did not want him to play the *PUBG* game because he was spending so much time on it.

Case 6—Suicide (source: Latestly 2019c): An unnamed 18-year-old teenager from Kurla (in Mumbai, Maharashtra), described as a *PUBG* game enthusiast, committed suicide after an argument with his family members about him wanting to buy an expensive smartphone to play *PUBG*. His family refused to buy the smartphone for him and he became so distraught that he hung himself from the ceiling fan in his family’s kitchen.

Case 7—Death (source: Latestly 2019d; News18 2019): An unnamed 20-year-old man from Jagitial, Telangana (in the center-south stretch of the Indian peninsula) was hospitalized in Hyderabad (also in Telangana) with serious neck pain after playing *PUBG* for 45 days and then died while undergoing treatment. It was claimed in both newspapers and on a social media video made by his roommate that the nerves surrounding his neck were damaged after playing *PUBG* constantly. However, Dr. Raj Kiran (of Bristlecone Hospital, Barkatpura, Hyderabad) later said his death was due to a serious illness (although no details as to what the serious illness were given) (Rajasekhar 2019).

Case 8—Death by train (source: News18 2019): Two young Indian men (Swapnil Annapurne aged 22 and Nagesh Gore aged 24 years) were so engrossed playing the *PUBG* game near some railway tracks that they were killed by a train at the Khatkali Bypass in the Hingoli district of Maharashtra (a state in the Indian western peninsula).

Other media stories have reported different psychosocial impacts of playing *PUBG* including a man (who may or may not have been Indian) who left his pregnant wife because of his addiction to *PUBG* (Cooper 2019). His constant playing of *PUBG* has caused arguments with his wife, and he had been neglecting his job as a consequence of his *PUBG* playing. Other stories have tried to link *PUBG* playing with extreme acts (e.g., “Delhi teen, who killed family, was addicted to online game”; Indian Express 2019) but the act (in this case, the killing of three members of his own family) has little (or nothing) to do with the playing *PUBG*.

In December 2018, *PUBG* was banned along with eight other games (including *Fortnite*) by China’s Online Gaming Ethics Review Committee because of the game’s alleged negative psychosocial impact on Chinese youth (New Indian Express 2019). In India, the local Governor of Jammu and Kashmir also tried to get the “life-threatening” game banned because of all the negative coverage *PUBG* had been given in the Indian press (New Indian Express 2019). The Bombay High Court has also asked the Indian Union government to take action against *PUBG* Mobile because of a public interest litigation (PIL) filed by Ahad Nizam (an 11-year-old boy in Mumbai) and his mother based on the argument that the game promotes violence, aggression, and cyberbullying (Sekhose 2019).

The game has also faced potential bans in Gujarat (including the cities of Rajkot, Ahmedabad, and Himmatnagar city) and Namil Nadu state, and Goa’s Information Technology minister is seeking for banning *PUBG* because of the alleged negative impact on children’s educational studies, as well as apparent (and unspecified) detrimental health and psychological effects (Sekhose 2019). In reaction to all the negative media attention, *PUBG* Mobile introduced a so-called “Healthy Gaming System” which prevents individuals from playing more than 6 h a day (although there is no update on the efficacy of such a system), and they are also in “constructive dialogue with relevant authorities” so that game prohibitions can be reversed. A PIL has also been filed by the Internet Freedom Foundation in Gujarat High Court against the banning of *PUBG* and has argued that such bans violate articles 14, 19, and 21 of the Indian Constitution (Sekhose 2019).

In writing this letter, the present authors are not saying that the highlighted cases in the print media are totally genuine or have been independently verified but demonstrates that many different stakeholders deem the issue of problematic gaming as important and/or newsworthy in India (e.g., gamers, parents, politicians, legislators, policymakers, treatment providers, etc.). The stories in the Indian print media certainly echo findings about problematic gaming found in the academic literature, and all have face validity based on case reports of problematic gaming that have been reported in non-Indian gaming contexts (e.g., Griffiths 2010; Torres-Rodriguez et al. 2019). *PUBG* may just be the latest in a long line of games that have been

vilified by the print media, and this time next year, the print media may be writing stories about a completely different game allegedly causing major negative psychosocial impacts to individuals.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Approval All procedures performed in this study involving human participants were in accordance with the ethical standards of the University's Research Ethics Board and with the 1975 Helsinki Declaration.

Informed Consent Informed consent was obtained from all participants.

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