

# Everyday Practice

## Gaming disorder for general practitioners: A brief overview

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### INTRODUCTION

Playing video games (online or offline) is a popular pastime but can have adverse consequences and can become problematic or addictive for a minority. 'Gaming disorder' (GD) is now a legitimate psychiatric disorder comprising adverse medical and psychological consequences to the individual. With advances in technology making such games more sophisticated, alongside easy access and affordability, more individuals are developing gaming-related problems and presenting for help to frontline doctors (i.e. general practitioners who see the widest range of patients daily).

### WHAT IS A GAMING DISORDER?

The diagnostic category of 'GD' was introduced in the WHO's psychiatric classification system (ICD-11) in May 2019.<sup>1</sup> Although this gave much legitimacy to this construct, there is still much debate on its precise definition, screening, assessment tools and treatment strategies (Box 1).

Contemporary video games are much more advanced and interactive than when they first emerged in the 1970s (e.g. *Pong*, *Space Invaders*, etc.). Current popular games include multiplayer online role-playing games (e.g. *World of Warcraft*) and multiplayer online battle arena games (e.g. *Fortnite*), as well as casual video games played on handheld devices such as *Candy Crush Saga*. Video games were originally played at arcades and on personal computers, but evolved into console gaming (examples include *Play Station*, *Xbox* consoles, etc.) and mobile gaming (via *Android/Apple* apps on smartphones/tablets) making gaming easily accessible and affordable.<sup>2</sup>

### EPIDEMIOLOGY

A report titled 'Digital in India 2019' stated that there were 433 million active internet users above the age of 12 years. Around 71 million users are in the 5–11 years age group.<sup>3</sup> Precise estimates of GD prevalence are lacking but experts agree that it ranges from 1.2% to 5.5% among adults in nationally

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### Box 1: ICD-11 diagnostic criteria for Gaming Disorder (WHO, 2018)

- A pattern of gaming behaviour ('digital-gaming' or 'video-gaming') characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.
- Gaming behaviour must be of a severity to have resulted in significant impairment in the person's personal, family, social, educational, occupational, or other important areas of functioning.
- A duration of at least 12 months.

representative studies<sup>4</sup> with slightly higher prevalence among adolescents.<sup>5</sup> GD is more common among men than women<sup>5,6</sup> and adolescents and emerging adults are most vulnerable.<sup>4,7</sup> In a study of 400 adolescent Indian school students, the prevalence of internet GD was found to be 3.5%; and it was higher among boys (8.8%) than girls (0.8%).<sup>8</sup> In another Indian study that looked at video game use among school children (13–16 years old), 17.5% of them fulfilled the diagnostic criteria for video game addiction (defined as score of 70 or above on the video game addiction scale used) and 19% of the children were spending more than 3 hours per day playing video games.<sup>9</sup>

It has also been seen that longer screen use irrespective of purpose will eventually affect the growth of younger children leading to an unhealthy lifestyle, increase in anxiety and may mediate the development of screen addiction.<sup>10,11</sup> Research worldwide has shown that individuals engage in gaming for many reasons including recreation, competition, sociability, skill development, fantasy, coping (mood improving and aggression channelling aspects) and escape (avoiding reality/problems).<sup>12</sup> Gaming can also be a problematic and/or risky behaviour, even for those not meeting the full diagnostic criteria.<sup>4</sup>

Although gaming may have positive effects for some individuals including therapeutic, educational and cognitive,<sup>13</sup> it can also negatively impact education/occupation and interpersonal relationships. Gaming can also be the result of and/or be associated with (sometimes bi-directionally) poor sleep, anxiety, depression, hyperactivity, social phobia, neuroticism and psychoticism. Medically, problems can include repetitive strain injuries, tendonitis, calluses/blisters, headaches, eye strains and visual or auditory disturbances.<sup>14</sup>

Indian studies in this field have also found results consistent

with those mentioned above. Excessive screen time among adolescents and young adults has been associated with lifestyle disturbances and psychiatric distress.<sup>15,16</sup> Physical difficulties (e.g. eye strain) and psychological distress (e.g. decreased sleep, irritability and restlessness) have been found among those with mobile phone addiction (6.8%), internet addiction (4.2%) and social networking site addiction (3%).<sup>17</sup>

In a study of 407 young gamers in India (aged 16–18 years), many were spending 10–14 hours per day playing video games. More strikingly, 68% of them had a lifetime history of psychological problems. Internet gaming was positively associated with depression, anxiety and stress. Anxiety was found to predict GD.<sup>18</sup>

Many individuals with gaming-related problems do not seek help from frontline doctors or other health professionals<sup>19</sup> and many gamers (and/or their families) are unaware that gaming can be a problem and merely view it as a hobby. Even when gamers and/or their families recognize it as a problem, they are unaware of where and how to seek help. Finally, because of the perceived stigma, even when gamers come to see doctors, they are reluctant to disclose their gaming habits and instead ‘present’ with non-gaming related issues.

#### WHY DO FRONTLINE DOCTORS NEED TO KNOW MORE ABOUT GD?

There are many reasons why frontline doctors should be aware of GD, not least being that it is increasing in incidence among adolescents and young adults and they, and their families are more likely to present to frontline doctors for help with ‘direct’ gaming-related issues or with a range of other ‘indirect’ issues such as the psychosocial and/or medical consequences. Recognized and managed early, GD can lead to fewer impairments in an individual’s functioning. Furthermore, simple screening instruments are available for use in primary care settings, which can detect those who need help, and brief psychosocial interventions can benefit many.

It is especially relevant in India because India’s online gaming market currently stands at US\$ 360 million, and is expected to grow to US\$ 1 billion by 2023. Most of the players in India are below the age of 24 years, and this is a concern to healthcare professionals and their families. The American Academy of Pediatrics has issued guidelines on the use of media for children: No screen time except video chatting for children between 0 and 18 months, high-quality programming or applications with parental/adult interaction and involvement for children who are 18–24 months old, and screen time of only one hour for 2- to 5-year-olds.<sup>20</sup> The WHO has prescribed an acceptable screen time of not more than 60 minutes of sedentary screen watching for children between the age group of 1–5 years, above which is considered as increased screen time.<sup>21</sup> The Indian government has brought out guidelines for online classes, and it appears sensible to develop broader guidelines for screen use including video games.

#### ROLE OF FRONTLINE DOCTORS

Frontline community doctors, paediatricians and other doctors have an important role in evaluating child/adolescent health and well-being as well as in informing parents and/or guardians on the risks and advantages of internet use. Frontline doctors can play their role in the monitoring of the incidence of gaming problems using simple screening tests (such as the Internet GD Scale-Short Form described in the next paragraph), offering

brief interventions, onward referral and treatment where appropriate.

One screening tool with high reliability and validity is the nine-item Internet GD Scale-Short Form which has good reliability and validity and has been translated into at least 12 languages across different age groups.<sup>22</sup> Brief psychosocial interventions, where feasible in primary care, can be offered to those with gaming problems before referring them to experts. These include explaining the risks of gaming and potential harms, discussing simple and practical measures to reduce gaming such as limiting the amount of time spent on games, and increasing time on non-gaming activities, and also ensuring regular and adequate sleep, diet and exercise.

Psychological treatments, such as cognitive-behaviour therapy, are the mainstay of treatment although the long-term efficacy of brief interventions has yet to be demonstrated in systematic reviews of the literature.<sup>23</sup> However, recent studies using psychotherapeutic interventions and more intensive holistic therapeutic programmes have reported good short- to long-term follow-up success.<sup>24,25</sup> Psychiatric medications are only effective in treating coexisting symptoms/disorders of anxiety, depression, etc. Where the clinical picture is too complex to be managed in primary care, referral for specialist treatment is recommended. Local addiction services could be the first port of call.

#### THE WAY FORWARD

We may have a pandemic or infodemic in the future. Frontline doctors have a crucial role in addressing gaming-related problems in primary care, community and at the initial point of contact in the hospital, given its prevalence, negative consequences, poor identification and insufficient treatment. Early identification and appropriate treatment can improve outcomes in GD. In a study that assessed the impact of Covid-19 on children,<sup>26</sup> of the 1102 respondents/parents of children, 88% reported noticeably increased screen time in their children. Crucial reasons for such increased screen exposure could be children’s limited access to outdoor activities and fewer opportunities for social interactions because of implementation of Covid-19 measures. India’s frontline doctors have a key role to play in ensuring that our young people are kept at low risk of developing GD, and that early and appropriate help is offered should young people present to them with gaming-related problems.

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