

# Challenges of gaming disorder: suggestions from a public health perspective

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Based on the results from numerous studies and discussions by expert groups organised by the WHO, gaming disorder is recognised as a mental disorder and is listed in the chapter of mental, behavioural and neurodevelopmental disorders in the recently released International Classification of Diseases, 11th Version (ICD-11).<sup>1</sup> Gaming disorder, gambling disorder and substance use disorder belong to the same category of mental disorder. This change will help improve the public's awareness and understanding of gaming disorder. Meanwhile, it will encourage related research and develop scientific and effective interventions for the purpose of negative consequences reduction.

## CORE CLINICAL FEATURES OF GAMING DISORDER

The proposed diagnostic guidelines for gaming disorder in ICD-11 are listed as follows: (1) a pattern of persistent or recurrent gaming behaviour ('digital gaming' or 'video-gaming'), which may be predominantly online (ie, over the internet or similar electronic networks) or offline, manifested by all of the following: impaired control over gaming behaviour (ie, onset, frequency, intensity, duration, termination, context); increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities; and continuation or escalation of gaming despite the occurrence of negative consequences (eg, repeated relationship

disruption, occupational or academic consequences, negative impact on health); (2) the pattern of gaming behaviour may be continuous or episodic and recurrent, but is manifested over an extended period of time (eg, 12 months); (3) the pattern of gaming behaviour results in marked distress or significant impairment in personal, family, social, educational, occupational or other important areas of functioning.

## RELATED FACTORS AND NEGATIVE CONSEQUENCES OF GAMING DISORDER

Studies have found that gaming disorder presents similar clinical characteristics and brain neuroimaging changes as substance dependence.<sup>2</sup> Gaming disorder has a series of physiological, psychological and family social problems.<sup>3,4</sup> The impact on physical health is mainly related to the unhealthy lifestyle of game players. They indulge in gaming most of the day, have an irregular lifestyle, lack exercise and their physical health declines. Many people with gaming disorder are addicted to games due to various psychological or family problems, and gaming disorder aggravates their psychological problems. In severe cases, they may also suffer from depression, anxiety and even psychotic disorders, which seriously affect their normal learning, family and social functions. Many teenagers give up their schooling due to gaming disorder.<sup>5,6</sup> Gaming disorder is also comorbid with many mental disorders, and affects its occurrence and development mutually.

Since the occurrence and development of gaming disorder are closely related to individual psychological, family and social factors, affecting individual physical, psychological, family and social functions,

comprehensive strategies including medical, psychological, family and social intervention are needed to prevent and reduce the harm of gaming disorder.<sup>7</sup>

## SUGGESTIONS FROM A PUBLIC HEALTH PERSPECTIVE

Gaming disorder is a public health issue with many factors related to psychological, family and social factors. The following items are suggested to prevent gaming disorder and control its negative consequences: (1) teenagers are the high-risk group for gaming disorder and they should be the targeted population of the prevention programmes. The prevention should be carried out jointly by related parties including schools, parents and related social organisations and focus on increasing the awareness of gaming disorder and related prevention skills. (2) Psychological well-being and healthy family functioning are protective factors for gaming disorder. Prevention programmes should focus on improving adolescent psychological well-being and psychological skills including interpersonal communication, emotional management and stress management skills. The involvement of family is especially important and should be stressed. Healthy family structure and function, good family relationships and communication, as well as psychological well-being of teenagers are all helpful for preventing gaming disorder. (3) Schools and parents should monitor teenagers' gaming behaviours, and it is very important for early detection and early intervention. Professional help is needed for those with gaming disorders. (4) The related research should be strengthened and standardised clinical services should be provided for gaming disorders. Guidelines on the diagnoses and treatment of gaming disorders are urgent for specialised treatment and recovery facilities. (5) The related government departments should lead the establishment and regulations

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from a public health point of view. The related parties including education, propaganda, mental health and psychology, as well as the gaming industry should jointly work together to take comprehensive prevention strategies such as developing game rating systems, supervising gaming behaviours, developing self-screening tools for gaming disorder and evidence-based interventions.

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