The Nigerian Picture of Gaming Disorder in Adolescents

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Abstract: Gaming has evolved to be an integral part of human activities. For most individuals, an innovation that seeks originally to achieve an easier way of doing things has increasingly become a necessity for living. Different terms have been used in literature to describe abnormal use of internet stimulating activities: internet gaming, smartphone addiction, pathological internet use, etc. The worldwide prevalence of Gaming Disorder is 0.7-27.5% with the highest prevalence recorded in Asia. There is a higher male prevalence for GD and a particular study showed differences in neuroimaging of male and female subjects. Despite the increase of studies on GD and technology-related disorders around the world, this topic remains understudied in Africa. While no exact data currently exists for the prevalence of GD among adolescents in Nigeria, studies have shown that sociocultural differences may not be associated with GD which means that identified statistics, risk factors and clinical features from non-localized studies could apply. As more details of GD continue to surface, researchers, clinicians and policymakers need to focus on this emerging condition, especially in a country like Nigeria, with the aims of obtaining relevant data, developing relevant clinical tools and designing public health policies to manage the disorder with regards to the local population's needs.

Keywords: Gaming Disorder, Adolescents, Nigeria

1. Introduction

The advent of computers and their evolutionary transformation over centuries has had a significant impact on human lives. The evolution of gaming over the past decades parallels that of technological advancements in computing and hardware. There has been a major leap from expensive video consoles of the 1980s to the 1990s to relatively cheap games accessible on smartphones both online and offline. As online games become more popular, gaming clans began to emerge all over the world. A clan, guild or faction is an organized group of players that regularly play together in multiplayer games. Such groups range from a few friends to thousands of players with a broad range of organizational structure, goals and members.

Gaming is more than just a booming entertainment business. It is reshaping the way gamers interact with their world and beginning to create a cankerworm of challenges for clinicians, researchers and policymakers. Generally, associated mental health phenomena with problematic use of digital media have been researched and studied since the late 20th century. Although there are no standardized terms used to refer to compulsive digital media use, digital addiction or dependencies are used to describe the disorders associated with internet and smartphone use. Common digital addiction disorders are (but unlimited to) online gambling, cyberbullying and online gaming disorders also called internet gaming disorders or for short, gaming disorders.

2. Evolution of Gaming Disorder in Adolescents

In 2018, Gaming Disorder (GD) was defined in the International Classification of Diseases (ICD) publication of the WHO as a pattern of gaming behavior characterized by impaired control over other activities to the extent that gaming takes precedence over other interests and daily activities and continuation of gaming despite the occurrence of negative consequences [1]. Many countries are recognizing GD as a public health issue and policies have

been put in places by countries such as China, Switzerland and Iran to deal with it [2]. Many clinics have been established in many Asia countries where clinical services for GD are most developed. Clinics are also being developed in North America and Europe [3].

Gaming Disorder is a topic of controversies. This is mainly due to a lack of consensus on diagnostic criteria. There are questions on whether GD should be considered a disorder in the face of insufficient evidence because there could be a premature application of diagnosis in the medical community and treatment of false positives leading to the stigmatization of heavy gamers who may not be unwell [4]. The Diagnostic and Statistical Manual of mental disorders, DSM (a publication of the American Psychiatry Association) in its fifth edition (DSM-5) in 2013 recognized GD as a condition for further research acknowledging that GD is a real issue but that criteria for classification needed to be sufficient to classify GD as a unique mental disorder [5].

It is expected of gaming to be more popular with young people. In the US, 61% of gamers were 35 years and younger and a third of these are under 18 years [6]. The definition of an adolescent is a young person in the process of developing from a child to an adult. WHO categorizes individuals in the 10 to 19-year age group as adolescents and according to WHO. The categorization based on age is only a rough marker that leaves no room for the physical, psychological or cultural expression which may begin at an earlier age or end at a later one. It is increasingly being accepted that adolescence is a stage requiring special care and attention. This is seen in the emergence of such specialized care as Adolescence medicine or Transitional Medicine.

The adolescent stage is a period of unprecedented development of the body's anatomy and physiology, and social interaction. The boy or girl becomes 'aware' of his environments - the sociocultural, economic and interpersonal elements, and begins to learn to respond to it in a broad range of ways. The adolescent suddenly finds himself in a complex world and tries to make sense of his role in it. This is also a stage of cognitive development and the adolescent goes ahead to make decisions for himself even when supposed consequences of such actions have been mentioned or depicted to him before. The adolescent explores his world beginning to recognize his passions and the things he doesn't want to do. He can visualize the future and put himself there, something adults have no luxury of doing and which children didn't even know existed. It is a time of discovering self and the opinions and values such an individual makes his own at this time define their adulthood.

While development is ongoing, adolescents constantly seek a safety net to slip into when overwhelmed by the challenges they face. This protection could be provided by a supportive atmosphere in the family, school and the bigger community. The absence of a well-structured support system is capable of exposing the adolescent to several psychological issues such as mood disorders, anxiety disorders, eating disorders and addictive disorders whose outcomes would now depend on a variety of factors chief of

which is the media. Media influence and increased access to the use of technology can exacerbate the disparity between an adolescent's physical reality and his perception or aspirations for the future and this is what makes matters worse and is the very inglorious role of Gaming Disorder in the lives of adolescents [7].

3. Prevalence

The worldwide prevalence of Gaming Disorder is 0.7-27.5% with the highest prevalence recorded in Asia [8]. A study conducted in Thailand indicated a prevalence of 5.4% among secondary students aged 12-18 years [9]. While these values seem insignificant, the increasing prevalence of GD say otherwise. There is a higher male prevalence for GD and a particular study showed differences in neuroimaging of male and female subjects [8].

Despite the increase of studies on GD and technology-related disorders around the world, this topic remains understudied in Africa [10]. Nigeria, which ranks first in internet connectivity on the continent with 123 million subscribers, has a prevalence of 26.9% for GD [10, 11]. While no exact data currently exists for the prevalence of GD among adolescents in Nigeria, studies have shown that sociocultural differences may not be associated with GD which means that identified statistics, risk factors and clinical features from non-localized studies could apply [9].

Identified risk factors for GD include an unstable home environment, underlying personality and psychological problems. Adolescence is characterized by a need for autonomy and competence in decision making and an overbearing or dictatorial parental approach could have negative consequences with adolescents not opening up to their parents and channeling their emotional and psychologically depraved minds to gaming [12]. The increased rate of divorce and separation which leaves children at the center of a war between parents is also a contributing factor.

4. Clinical Features

According to the *DSM-5,* gaming must cause significant impairment or distress in several aspects of a person's life before a diagnosis of GD can be made [5]. There is a wide range of symptoms but generally, patients with GD are unable to limit the amount of time they spend gaming and continue to play despite negative consequences which could include lower academic achievement and consequent dropping out of school, aggression and social phobia with a low level of productivity and in some cases more insidious health challenges like clot formation due to inactivity [3]. Proposed symptoms of GD by DSM-5 include the following [5]:

a. Preoccupation with gaming.
b. Withdrawal symptoms when gaming is taken away or not possible.
c. Tolerance, the need to spend more time gaming to satisfy the urge.

d. Inability to reduce playing, unsuccessful attempts to quit gaming.

e. Deceiving family members or others about the amount of time spent on gaming.

f. The use of gaming to relieve negative moods.

g. Risk having jeopardized or lost a job or relationship due to gaming.

GD is associated with stress, anxiety and depression with the relationship going either way. A stressed individual may turn to the game to escape these feelings. On the other way, GD may cause depression, stress and anxiety due to its impact on an individual's neuro-circuitry [9]. Organic disease involving the visual system were reported mainly due to the inability of the human optic system to tolerate prolonged viewing of digital images from electronic devices. Musculoskeletal problems such as pain and tendinosis are characteristic presenting complaints of chronic gamers. Pathological entities such as Wii fracture and PlayStation thumb have also been reported [13].

It's important here to mention that gaming has been found to have various effects on the academic performance of adolescents based on the time spent gaming and the diversity of games played with gamers of long hours and narrow diversity recording poor performance [14]. Likewise, the implications of gaming based on weekday or weekend playing on academic performance are two different sides of a coin with weekday gaming having substantial negative effects on academic performance [15]. This is basically due to attention deficits and considerably low study time as most of the time has been spent gaming. While gaming could be a catalyst for poor academic performance, the relationship remains difficult to define due to the complex nature of student life and academic performance [16]. Noteworthy of mention is the application of gaming to stimulate interest and improve academic performance. The widespread success of such intervention is yet to be seen.

In Nigeria, there has been an escalation of the worrisome trend of poor academic performance of adolescents in recent years. Top on the list of causes is a lack of interest in academic activities and an abundance of distractions that make it difficult for young students to focus on academic activities. These are closely associated with the perception that sterling academic performance doesn't guarantee financial success. In an increasingly materialistic world, academic performance keeps sinking the priority list of young people. The boom of technology has not helped matters. While electronic devices could pass as great study tools, many young people are distracted by them with only a few ever tapping into the numerous resources they provide. While gaming may not directly correlate with poor academic performance among Nigerian adolescents, its influence on cognitive performance makes it an important subject of consideration.

5. Diagnosis

There are several diagnostic tools currently in use for the

assessment of GD but lack of consensus renders many of them invalidated [17]:

a. The Internet Gaming Disorder Test (IGD-20).

b. Internet Gaming Disorder Scale – Short Form (IGDS9-SF).

c. The Internet Gaming Disorder Scale (IGDS).

d. The Ten-Item Internet Gaming Disorder Test (IGDT-10).

e. Clinical Assessment Tool (C-VAT 2.0).

f. The Personal Internet Gaming Disorder Evaluation-9 (PIE-9).

6. Management

Treatment of GD is quite challenging because of the ubiquity of the internet. Approaches tend to focus on getting the patient to recognize their addiction and to carefully pull them from their virtual world to reality. A mix of cognitive-behavioral therapy, social skills development and treatment program emphasizing physical activity was used in a specialized clinic in Japan. Another clinic also in Japan used psychotherapy to reconnect patients with themselves, their life objectives and their social environment [3].

Apart from the clinical approach to treatment, parental roles have been identified. General parental monitoring including knowledge of adolescent's activities and set of rules on the internet and electronic device use can potentially reduce gaming disorder [18]. An authoritarian approach could lead to apathy and rebellion which could complicate matters. Therefore, communication is the best strategy [18]. Parents need to create time out of their busy schedules to engage with their children, not monotonously but as a desirable relationship. This could be quite challenging for parents in the western world whose children have developed an early awareness and pursuit of independence. Parents in more traditional societies have the leverage of reference and respect for adults as an advantage.

Also, a sound father-child relationship is beneficial and seems to be more important than the mother-child relationship in preventing and dealing with gaming disorder [18]. Children that grow up without their fathers are usually more likely to experience behavioral disturbances than those who did. This is possibly due to the father's unique contributions in attending to the child's activities and (in the case of gaming disorder), the provision of rules and supervision of internet use [18]. The mother's contributions of emotional warmth and communication are also valuable.

Apart from parents, school teachers are an important influence on adolescents. The ability of the teacher to provide firm but loving guidance for adolescents will go a long way. Many adolescents who treat their parents with disrespect worship their teachers. Careful exploitation of this will provide adolescents with troubled homes a safety net to land on.

7. Conclusion

The internet, like alcohol and drugs, creates a false

sense of security for adolescents who are going through a transition period and are overwhelmed. In countries like Nigeria where they tend to be neglected, efforts should be trumped to create a safe enabling environment for their survival.

With a worldwide prevalence ranging from 0.7-27.5% and as more details of GD continue to surface, researchers, clinicians and policymakers need to focus on this emerging condition with the aims of obtaining relevant data, developing relevant clinical tools and designing public health policies to manage the disorder with regards to the local population's needs.

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