

The influence of the digital media in cases of attention deficit hyperactivity disorder (ADHD) and alternatives to the context

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Abstract: With the popularization of social networks that focuses on the dissemination of images, much of society follows the "rule" that everything is likely to be seen, photographed and generates virtual content to be consumed by those within reach. In addition to other disorders such as anxiety and panic, attention deficit hyperactivity disorder has been affecting young people and adults, evidencing a link with the exacerbate use of the Internet. At first, this research will seek to conceptualize and characterize attention deficit hyperactivity disorder in the context, with a view to clarifying the core of the disorder objectively. Then, the relationship between digital environment and ADHD will be analyzed, exposing the influence of electronic media as a driving factor of cases. In the final lines will be analyzed and exposed possible alternatives to resolve the rigors of the disorder, also using the digital environment, to slow down the highlighted scenario.

Keywords: Digital media. Applications. Treatment. Therapy. Psychology

1. Introduction

In the current scenario, where digital media is strongly linked to the routine of society, the constant stimuli of various orders perpetrate in the users' brains, increasing the incidence of cases of mental disorders (Oliveira *et al.*, 2021). Among the most recurrent mental disorders in Brazil, Attention Deficit Hyperactivity Disorder (ADHD) appears in third place (Thiengo *et al.*, 2014), however, due to its peculiar triad of criteria – inattention, hyperactivity and impulsivity (APA, 2014) – provides a branch of comorbidities with other mental spectrum disorders.

At first look at the triad of inattention, hyperactivity and impulsivity do not seem to provide potential dangers for the carrier of the disorder. As we expand the analysis, we realize that the patient will not be taken to a hospital emergency room due to a symptom of inattention, but may go through a car accident caused by inattention – it may not be considered a serious case for impulsivity, but may denote an exorbitant internet addiction with abusive use of electronic games (Reinhardt and Reinhardt, 2013). Thus, the three pillars of ADHD present deeper aspects regarding the effects of the disorder on the social sinus.

Thus, the influence of electronic media has caused silent

and chronic effects in patients with attention deficit hyperactivity disorder (ADHD), in such a way as to interfere incisively in affective and social, educational and professional life. The symptoms are broad. The disorder has long been linked to the idea of reaching only children and adolescents due to symptoms that are evident in this phase of development (Mattos *et al*, 2003 apud Oliveira e Dias, 2015). Due to the fact that children and adolescents are still in neurological formation, however, a high rate of these presents persistence of the clinical picture of ADHD of 70% for adulthood (Cardoso, Velho, 2016). Other studies conducted in São Paulo indicated that, of the ADHD patients interviewed aged 20 to 56 years, presented symptoms of anguish and anxiety, with reports of difficulties in professional, affective, academic, financial and financial relationships. The elderly in this group complained about the losses they had due to the disorder (Silva *et al*, 2006).

2. Methodology

This study includes descriptive analysis of data obtained through the Scientific Electronic Library Online (SciELO) platform, Brazilian Journal of Health Review, from the Diagnostic and Statistical Manual of Mental Disorders: DSM-5, with the objective of analyzing, discussing and seeking new solutions about the disorder. The following inclusion criteria are used: articles indexed free of charge in full, in Portuguese and English. As exclusion criterion: articles in other languages, works in the master's and/or doctorate dissertation format and documents and/or texts based on popular knowledge.

The intersection of terms occurred with the use of the words: ADHD, children and adolescents, digital media, electronic media, social networks, internet influence. Soon after, the articles were read and discussed thoroughly and those that suited for the theme were approved for analysis, causing the most important information to be used.

3. Results and Discussion

Attention deficit hyperactivity disorder initially arose in 1902 and was related to a defect in the moral conduct of the patient, accompanied by restlessness, inattention and difficulties before rules and limits (Oliveira *et al*, 2021). Only in 1994 did the DSM-IV include as a disorder (ADHD). In Brazil it is called a disorder and is linked to three characteristic dysfunctions: inattention, hyperactivity and impulsivity (APA, 2014). According to the DSM-V Diagnostic Manual, in order to configure the disorder, it is necessary that the patient fits into six conditions referring to any of the symptoms of the triad – inattention, hyperactivity and impulsivity (APA, 2014).

Thus, a symptom covers the cause, which is one of the symptoms of the triad – for example, a low school performance hides an inattention as a primary symptom. In patients in the lower age groups, symptoms can include diverse and structural levels of child development: deficiency in the development of spoken and written communication,

change in planning and organization capacities, impairment of motor, temporal and spatial coordination (Pereira *et al*, 2005 apud Costa *et al*, 2015).

ADHD is one of the most recurrent disorders in individuals who make exaggerated use of the Internet, among these, adolescents with internet dependence and less control in its use. Studies conducted with young people in Los Angeles indicated a high relationship between patients with the disorder and high-frequency internet users (Oliveira *et al*, 2021).

The new technologies work primarily with quick responses to capture the user's attention, with dopamine release in the reward system. In this context, time management for patients with the disorder with symptoms of hyperactivity and impulsivity is impaired (Schimidek *et al*, 2018). By analyzing the ID binomial and internet dependence, we perceive a symbiotic relationship where the dependence on digital media stimulates the disorder, and this, in turn, drives the increase in the consumption of digital media, increasing the need for hours in exposure to virtual reality (Pirocca, 2012).

The damage caused by prolonged internet use involves several areas. They are present in the biological sphere with decreased gray matter in the prefrontal cortex. They also show reduced cognitive abilities and school performance. The damage also extends to the social sphere, in relationships, with increased impulsivity and reduced attention (Oliveira *et al*, 2021).

Within the research proposal and without excluding follow-up by professionals, re-education in the use of the Internet is a way to contain the development of harm and reduce the suffering of patients with the disorder. Cognitive Behavioral Therapy is the most solid way to overcome internet compulsion (Pirocca, 2012) as well as necessary for the treatment of ADHD, drug or not.

Within the virtual environment, the use of organizing applications can favor the daily activities of the user and focus on their productivity of ADHD sufferers. The Focus app is aimed at ADHD patients and healthcare professionals, which allows network profiling with data monitoring. The application scales the level of inattention and hyperactivity of the user and adapts to their need (UFRGS, 2022). Other applications are listed by the Brazilian Association of Attention Deficit with the function of assisting carriers, such as ADHD Angel, Evernote, Life Coach, Money Wiz, Trello (ABDA, 2022).

This technology support may be evidenced as a useful tool in containing the unbridled advance of the disorder, in the re-education of habits and with the patient always accompanied by a health professional, according to Young's behavioral strategies about internet dependence involving time management in relation to the addition (Young apud Pirocca, 2012).

4. Conclusions

Social networks and digital media have profoundly impacted the values of our society, making appearances,

status and idealizing a 'perfect life'. This change of values, although constantly changing, can become a trigger of suffering, since we are daily presented with a stereotype of beauty and lifestyle that is not easily attainable and this can generate malaise. This environment is favorable for the multiplication of mental and behavioral disorders, especially ADHD.

The study proposal was based on the relationship between ADHD patients and the Internet. Looking through the prism that the vaccine comes to be the poison itself in smaller amounts, an alternative for users would be to use time management applications and organizers, which seek to focus on productive activities and the reeducation of internet use. Some other apps feature smartphone usage restriction functions. When seeing this research, one can gradually replace some of the most harmful habits for the disorder, such as the use of social networks (Instagram, Facebook etc.) by reasoning games such as chess, sudoku etc.

Obviously, the research does not resolve the established situation. However, it is expected to prove useful, both for scholars of the subject and for the patients themselves.

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