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Research article

Behavioral Challenges for Children and Adolescents with Disabilities Using Social Media and Playing Video Games

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Abstract

Literature review shows an increasing interest in investigating the impact that social media and the use of video games have on typically developed children and adolescents, as the number of users has grown significantly, social media being the most popular activity engaged in by individuals online. This situation along with some inappropriate behaviors the users display as a consequence of a long exposure to different online contents, determined the inclusion of a psychiatric disorder of gaming addiction in reference manuals related to mental health. Nevertheless, the number of studies regarding children with disabilities and their engagement in online activities, including social media and video games is significantly smaller. The aim of this study is to identify the relationship between the use of social media and the occurrence of disruptive behaviors in students with special educational requirements, aged between 11 and 17 years old, according to the data collected from teachers, parents and relatives.

Keywords:
social media; video games; disruptive behaviors; parents` perception; special needs.

Zusammenfasung

Die Literaturrecherche zeigt ein zunehmendes Interesse an der Untersuchung der Auswirkungen sozialer Medien und der Nutzung von Videospielen auf typisch entwickelte Kinder und Jugendliche, da die Zahl der Nutzer*innen erheblich zugenommen hat und soziale Medien die beliebteste Online-Aktivität von Einzelpersonen sind. Diese Situation und einige unangemessene Verhaltensweisen, die die Nutzer*innen als Folge von langem Kontakt mit verschiedenen Online-Inhalten am Tag zeigen, waren ausschlaggebend für die Aufnahme der psychiatrischen Störung der Spielsucht in Referenzhandbücher für psychische Gesundheit. Dennoch ist die Zahl der Studien über Kinder mit Behinderungen und ihr Engagement in Online-Aktivitäten einschließlich sozialer Medien und Videospiele deutlich geringer. Ziel dieser Studie ist es, den Zusammenhang zwischen der Nutzung sozialer Medien und dem Auftreten störender Verhaltensweisen bei Schüler*innen mit sonderpädagogischem Förderbedarf im Alter von 11 bis 17 Jahren anhand der von Lehrern, Eltern und Verwandten erhobenen Daten zu ermitteln.

Schlüsselworte:
soziale Medien; Videospiele; störende Verhaltensweisen; Wahrnehmung der Eltern; besondere Bedürfnisse.

1. Introduction

Social media and video games are nowadays a central part of children and adolescents` lives. The past decades show a continuous rise in youth's digital media consumption (Lissak, 2018) and at the same time, the use of mobile devices which allows access to most types of content and encourages multi-screening as well as an immediate reward is creating a real concern among professionals (Falbe et al., 2015). Along with some real advantages related to a wider access to information and a faster communication, the recent years brought many studies associating screen exposure to health (cardiovascular system, sleep, vision) and psychological problems (behavioral and social outcomes) among children and adolescents (Lissak, 2018).

Nearly half of children and adolescents aged between 12 and 17 years visit different websites daily and spend an average of at least 1 h per day dedicated solely to social media use (Coyne et al., 2020).

According to recent data, about 93.8% of children or adolescents aged 10-14 had used internet services, studies showing that friendship networking sites may provide adolescents with more opportunities than face-to-face situations (Cheng and Lau, 2018).

At the same time, in 2021, statistics provided data indicating that more than two billion people played video games with a growth rate in 2022 and 2023. A great number of these are unfortunately children and adolescents (Matias et al., 2023). With the rapid increase of time spent in gaming and in the use of social media, some problematic behaviors have emerged leading to the inclusion of a psychiatric disorder of gaming addiction in reference manuals related to mental health (Matias et al., 2023).

Literature review shows an increasing interest in investigating the impact that social media and the use of video games have on typically developed children and adolescents, but the number of studies regarding children with disabilities is significantly smaller.

2. Theoretical foundation

Acun (2020) argues some of the previous studies and mentions that a low frequency in using social media by children and adolescents with a high level of self-esteem can diminish their risk of depression or of having a low life satisfaction. In his study, the same author states that individuals with lower self-esteem tend to use social media more often willing to improve precisely their self-esteem and also their self image, which is considered a very good predictor for social experiences, such as social acceptance, social behavior, the quality of the relationships and their consistency. Nevertheless, a great number of studies (Holtz & Appel, 2011, Kowalski et al., 2016, Coyne et al., 2020) tend to demonstrate that social media, beside some real advantages, have a negative impact on children and adolescents with different types of disabilities.

On the other hand, studies show that the age group with the highest ratio of Internet users is 12-17, weather we speak about typically developed or individuals with disabilities (Holtz & Appel, 2011). Taking into consideration the latest research (Coyne et al., 2020), new media provide dangerous content, including web pages with age-inappropriate material, violent and aggressive video games, unprotected chat rooms and discussion boards.

If we consider teens with disabilities and their misunderstandings of many social challenges, their vulnerability in facing reality and in discriminating between fake and real aspects presented on the Internet, we can easily understand that they are often victims of cyberbully (Kowalski et al, 2016), as well as of traditional bullying (Annerback et al, 2014) leading to different types of abuse (physical, emotional and sexual). Additionally, because individuals with disabilities, such as autism spectrum disorder, often have poor social skills, they also have very few social connections and those who lack Theory of Mind skills and who are, thus, unable to discern the intent of others may not recognize that they are actually having cyberbully actions (Kowalski et al., 2014).

Furthermore, children with ADHD or/and ASD seem to be victims as well as harassers in online and offline and some health conditions such as obesity, diabetes or physical disabilities can predispose these individuals to be victims of harassment due to their physical or functional differences (Kowalski et al., 2016). The consequences of cyberbully can be observed through internal problems, such as anxiety, depression, high degrees of loneliness and low self-esteem but also through external issues, meaning inappropriate behaviors, absence from school, decrease of school performance or some physical symptoms like headaches, stomach pains and sleep problems. The same issues could be found within the harassers` profiles beside antisocial behaviors and substance abuse in some cases (Cheng & Lau, 2018).

Several studies show that there is a connection between the use of social media and the occurrence of inappropriate or disruptive behaviors in children with disabilities. These behaviors could be determined either by low verbal skills, or by a poor capacity of understanding the meaning of some events or a difficulty of processing and controlling emotions. Additionally, the use of online platforms can lead, for children or adolescents with different types of disabilities, to interactions with an inappropriate content or with individuals who can involve them in disruptive behaviors (Cheng & Lau, 2018, Alfredsson Agren et al., 2020).

Studies found that for children between 10-12 years old, excessive screen use of 4 hours per day or more was significantly related to negative well-being symptoms like little interest in doing things, little appetite or interest in having good meals, wishes of being alone, crying easily for no particular reason, difficulties in falling asleep or staying asleep, feeling depressed or seeing future like something useless or dangerous (Yang et al., 2013).

Considering the increasing use of social media and video games among children and adolescents with disabilities, one of the main factor that needs to be approached is parents` perception. Parents perceive their children and adolescents as being more sensitive than others when interacting on the internet and state that they have to offer daily protection and support to ensure safe digital participation (Alfredsson Agren et al., 2020).

Most parents proved to be aware of the major risks represented by the use of social media and video games, meaning the exposure to harmful content, disclosure of personal information, ignoring existing friends and searching new ones in virtual communities, postponing school and family tasks due

to the great amount of time spent in online and the use of Internet without purpose (Inan-Kaya et al., 2018).

Staff and parents of adolescents with disabilities using the internet have been found to be concerned about some serious risks of inappropriate online content, such as pornography, cyberbully and sexual abuse, having a great impact on their behavior. Nevertheless the same parents consider that the advantages of using social media and internet are greater than the disadvantages (Molin et al., 2014). Moreover, parents have a positive attitude regarding the use of a smartphone by children and teens with disabilities (Heitplatz et al., 2021), this perception being determined by an easier communication, a rapid access to information, a greater feeling of belonging to a group and of acceptance from others.

Inan-Kaya and his colleagues (2018) specified the use of five types of parental mediation to reduce the risks of their children`s exposure to Internet content and video games. These refer to an active mediation of the Internet, which involves discussions between parents and children about activities and content within different websites, a mediation based on the secure use of the Internet, establishing rules and timing, the use of control and selection of the content or monitoring children through a detailed check-up of their telephone or laptop.

Parents' screen time and parental attitudes were significantly related to children's screen time as shown by Lauricella et al. (2015). As mentioned above, parents used active, restrictive and mediation strategies for technological devices. This means that parental education for awareness is one of the preventive and/or intervention solutions to make children understand the negative effects of using social media and video games excessively and to prevent the risks (Staksrud & Livingstone, 2009).

On the other hand, more parents understand their children`s disability and it`s impact on functioning, more they can set realistic expectations concerning their children`s future. In other words, if parents` well-being has a high level and their relationship with the child is tight enough, it will be easier for them to support the child or adolescent, offering a better understanding and guidance in using social media and in implementing strategies for reducing inappropriate and disruptive behaviors (Ryan & Quinlan, 2017).

3. Research methodology

3.1.Participants

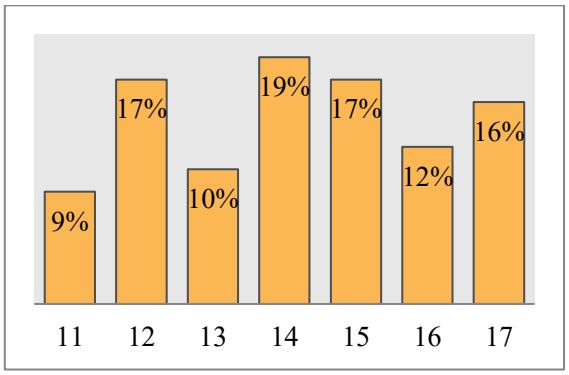
This study had 31 teachers and 27 parents and caregivers of children with special needs as participants. These participants were selected based on the following criteria: they were either teachers, parents, or caregivers of children with special needs, and the referred children had to be between 11 and 17 years old and use social media, even minimally.

The relationship between the participants and the children was based on regularly interaction over the past six months. This allowed them to provide information about the children's behavior and made it easier for them to identify changes and difficulties related to social media use.

The demographic data collected showed that the age of the respondents who completed the questionnaire ranged from 23 to 56 years old. Most of them, 81%, were women, while the remaining 19% were men. Additionally, 81% of the respondents lived or taught in urban areas, while the remaining 19% lived in rural areas. Respondents had varying levels of education, including middle school, high school, vocational school, and university.

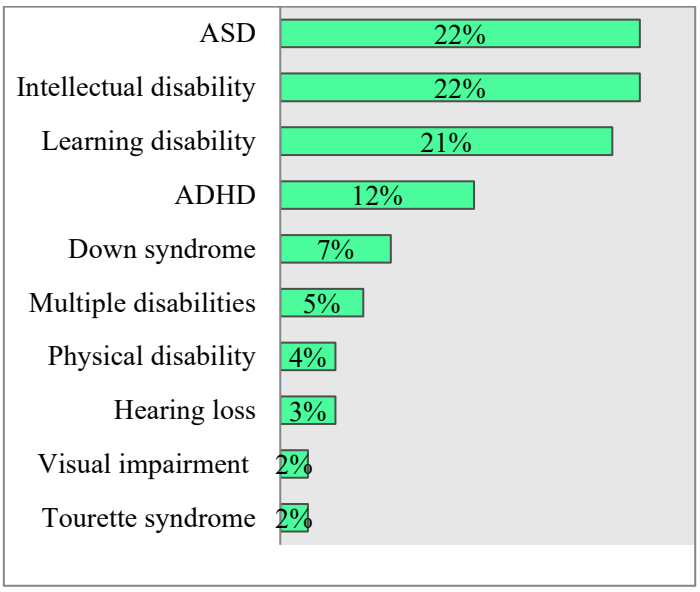
The participants described 58 children with age ranges between 11 and 17 years old. These children were studying in regular or special schools and exhibited disruptive behavior.

Figure 1. Age distribution among children



Each child had a diagnosed syndrome or disability. The most common diagnoses were autism spectrum disorder (ASD), intellectual disability, learning disability and attention deficit hyperactivity disorder. A smaller percent of children had other diagnoses including Down syndrome, multiple disabilities, physical disability, hearing loss, visual impairment and Tourette syndrome.

Figure 2. Children's Disability Types



The presence of disruptive behaviors was crucial to assess their potential connection to social media. Participants reported various disruptive behaviors. Teachers observed students with special needs making noises to distract peers, leaving their seats, bullying others, interrupting activities, refusing to participate, showing disrespect toward teachers, taking objects without permission, destroying them, using an inappropriate language and using smartphones during activities. Parents and caregivers reported behaviors such as throwing objects, coming home late, pushing, screaming, not taking turns, interrupting discussions, failing to complete homework, and displaying opposition or defiant behavior.

3.2. Instruments

3.2.1. Social Media Use and its Influence on Disruptive Behaviors Questionnaire

This questionnaire was developed for the current research due to the absence of standardized instruments to investigate the influence of social media use on disruptive behaviors.

This instrument was divided into two main parts. The first part included demographic data about the participants (including initials, age, gender, residence, studies, and their relationship with the child) and the children (including age and disability). The second part investigated social media and video games use and its impact on disruptive behaviors from the perspectives of teachers and parents/caregivers.

The participants were able to access both multiple-choice questions and open questions to provide information in a genuine way.

On one hand, questions regarding social media use included details about the apps, favorite content, and time spent on them. On the other hand, participants were asked about observing disruptive behaviors in children after they used social media, whether children tried to imitate online content in real life, or they believed these disruptive behaviors were solely a result of the diagnosis, or if social media and video games use could also influence their occurrence.

The results of this questionnaire were converted into percentages in order to observe the general trend.

3.2.2. Disruptive Behavior Disorder Rating Scale (DBDRS)

The DBDRS (Pelham et al., 1992) is a 45-question scale used to identify symptoms of attention deficit hyperactivity disorder (ADHD), opposition defiant behavior disorder, and conduct disorder in children aged 5 years or older.

The questions can be completed by the parent/caregiver or the teacher of the child, each of them showing four possible responses: "not at all", "just a little", "pretty much", "very much".

The scale has two scoring methods:

1. The first method counts only the "pretty much" and "very much" responses and calculates a score for each disorder mentioned above. For the attention deficit hyperactivity disorder, items are assigned for each type (the primarily inattentive type, the primarily hyperactive and impulsive type, and the combined type). Items are also assigned for opposition defiant behavior disorder and conduct disorder, with the latter being divided into four sub-types: aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules.

2. The second scoring method involves assigning a number of points to each answer. Specifically, a "not at all" answer receives 0 points, a "just a little" answer receives 1 point, a "pretty much" answer receives 2 points, and a "very much" answer receives 3 points. This scoring method is used to calculate the score only for opposition/defiant behavior, inattention, and impulsivity/ over-activity. A table of norms is then consulted.

We chose the first scoring method because it is more comprehensive and can identify the specific areas of difficulty for each child with special needs described in this study, ensuring clear and precise distinctions between the mentioned types.

3.2.3. Strengths and Difficulties Questionnaire (SDQ)

The SDQ (Goodman, 1997) is a short behavioral screening instrument designed for children aged between 4-10 and 11-17 years old. It offers various versions customized for completion by teachers, parents, caregivers, or the children themselves.

There are 25 main questions using a Likert scale with response options "false", "more or less true", and "definitely true". These questions assess psychological attributes, and each scale contains 5 items. The scales cover emotional symptoms, conduct problems, hyperactivity/ inattention, peer relationship problems, and prosocial behavior. Notably, the sum of the first four scales generates a total difficulties score.

In addition to the main questions, the instrument includes a supplement with several questions that investigate difficulties in areas such as concentration, emotions, behavior, interpersonal relationships, learning, family life, and leisure time.

The scoring is done by awarding 0 points for a "false" response, 1 point for a "more or less" response and 2 points for a "definitely true" response, except some reverse items, where the scores will also be reversed. The score will be calculated for each of the five scales; in this case the scores will vary between 0 and 10 points. A total difficulty score can also be calculated, and it can range between 0 and 40 points (the score for the prosocial behavior scale will not be taken into consideration). An externalizing score is also calculated, which will vary between 0-20 points and will be the sum of the scales "conduct problems" and "hyperactivity", and an internalizing score, as the sum of the scales "emotional symptoms" and "peer relationship problems".

The supplement score can reach a maximum of 10 points in the parents or caregivers version and a maximum of 6 points in the teachers' version, with scores of 0 for "not at all" and "just a little", 1 for "quite a lot", and 2 for "very much". The questions about chronic and respondent burden were not included in the impact score.

3.3. Procedure

The data were collected through the virtual platform "Google Forms" which enabled indirect communication with the target group, where completing the questionnaires was the only task.

The virtual form was shared in parents' and teachers' virtual groups. It included a suggestive image with the research title and a text description that specified the eligibility requirements, completion time, and provided two distinct links, one for teachers and one for parents / caregivers.

When accessing the form, participants had to read study details and complete an informed consent regarding personal data.

The participants' responses were converted into charts and tables using the scoring methods of each instrument chosen for the study. For the first questionnaire, in the absence of a scoring method, the answers were transformed into percentages to observe general tendencies.

This quantitative research, characterized by objectivity and a neutral interpretation of data, aimed to establish connections between variables, make predictions, and generalize results to some extent. Several advantages of using online questionnaires as a research method were observed, including participant anonymity (no requirement for full names or email addresses), convenience (accessible on various devices at any time and location), reach (enabling a larger participant pool), flexible completion time (no timer constraints), and efficient data storage (all responses saved in an easily accessible virtual database).

4. Results

Starting from the hypothesis that social media represents a factor contributing to the emergence of disruptive behaviors among children with special needs, aged between 11 and 17 years old, we will now present the results obtained for each instrument.

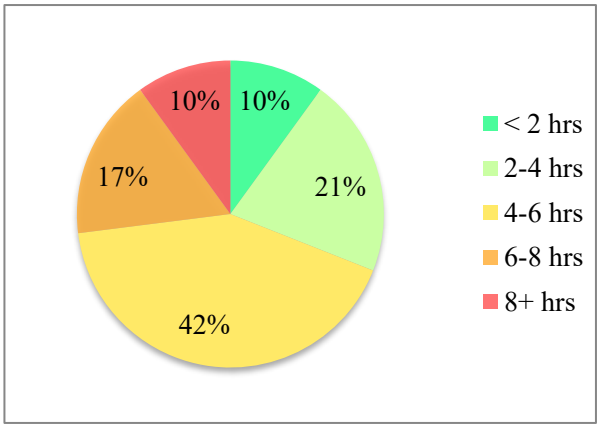
4.1. Social Media Use and its Influence on Disruptive Behaviors Questionnaire

Selecting the most well-known and used apps among the Romanian population and noting that each participant could choose more than one answer, the group of children showed a preference for the following social media platforms: TikTok (74,14%), Facebook (72,41%), Youtube (68,97%), Messenger (58,62%), video games (58,62%), Whatsapp (51,72%), Instagram (51,72%), Snapchat (36,21%), Pinterest (24,14%) and Telegram (1,72%).

When it comes to the preferred content type, the children in our study would choose: entertaining videos (82,76%), stories (70,69%), pictures (63,79%), music (60,34%), video games (55,17%), private chats (48,28%), educational videos (36,21%), live streaming (36,21%) and GIFs (22,41%).

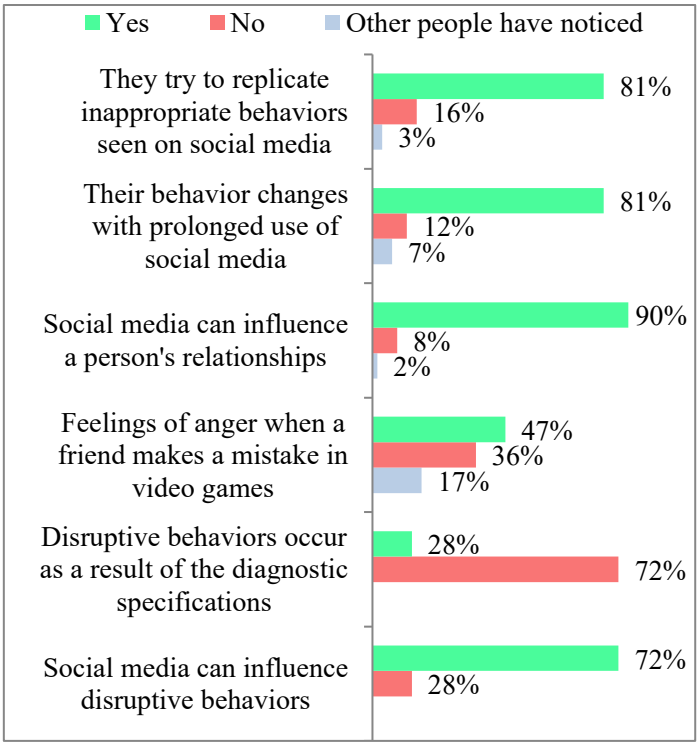
The average time spent using social media in a day by the students with special educational needs mentioned in this study is divided as follows:

Figure 3. The average time spent on social media by the students



Evidence show that the majority, comprising 42% of them, spend an average of 4-6 hours per day using social media. Out of the whole group, 21% spent between 2 and 4 hours, while 17% even allocate between 6 and 8 hours. On the other hand, at the opposite extremes, there are situations where 10% spend less than 2 hours a day, while 10% have a screen-time of more than 8 hours. The relatively increased time can also be explained from the perspective of a discomfort that may arise when the child either fails to achieve his gaming objectives, either feels that exiting the app might be an obstacle in his interaction with his favorite content.

Figure 4. The influence of social media on children's disruptive behaviors



At the group level, a percentage of 72% is notable, represented by participants who believe that social media leads to negative behaviors, and 8% is the percentage of those who consider that inappropriate behaviors are due to the diagnostic categories. It is important to mention that certain types of disabilities can be the cause of the emergence of such behaviors. There are situations in which individuals diagnosed with various disorders exhibit behaviors that are not entirely accepted in society. These behaviors are commonly observed during adolescence, especially when there is also a diagnosis of intellectual disability, and other inappropriate behaviors can interfere with the child`s life, leading to feelings of frustration, fear, or sense of uselessness. We want to mention that the purpose of this study is not to explain the presence of disruptive behaviors in this population as solely the result of interacting with inappropriate media content, but to determine whether social media is one of the factors that can explain the occurrence of these inappropriate behaviors.

4.2. Disruptive Behavior Disorder Rating Scale (DBDRS)

The disruptive behaviors targeted by this instrument assessed the degree of eligibility for the following disorders: attention deficit hyperactivity disorder, opposition defiant behavior disorder, and conduct disorder.

The participants' responses regarding children were represented in the following table:

Table 1. The eligibility among children and adolescents on the DBDRS instrument

	Attention deficit hyperactivity disorder
Inattentive	21%
Hyperactive-Impulsive	8%
Combined	0%
	Opposition defiant behavior disorder
Eligible	31%
Ineligible	69%
	Conduct disorder
Eligible	28%
Ineligible	72%

Out of the 58 children referenced by the participants throughout the study, 29% of them would meet the criteria for the attention deficit hyperactivity disorder, according to the analysis of the scores

included in the instrument. The majority of these, represented by 21% correspond to the inattentive type of this disorder, characterized by behaviors such as: short attention span, poor concentration ability, careless mistakes, forgetfulness or loss of items, disorganization, difficulty following instructions, and constant task or activity shifting. Only 8% would exhibit behaviors that would categorize them as the hyperactive-impulsive type of this disorder, and examples of such observable behaviors include: an inability to sit still when expected, a constant state of physical restlessness that impairs their ability to focus on tasks, difficulty waiting their turn, interrupting others in conversations and appearing to act without considering consequences. Following the analysis of the results, it is evident that no individual meets the criteria for the combined type, which involves a combination of symptoms from the inattentive type and the hyperactive-impulsive type.

Although 69% would not be eligible, 31% could meet the criteria for the opposition defiant disorder. While it is not the majority, the 31% is still quite high, indicating the presence of these difficulties. Opposition and defiant behavior can be characteristic during the ages of 11-17 and can be observed in both typical individuals and those with various diagnostic categories. Any young person experiencing the changes of puberty will need to undergo physical and psychological adjustments that can seem overwhelming. It is not uncommon for individuals of this age to have a desire to take control of their own lives and exhibit negative behaviors directed towards their parents or teachers. In the case of disorders that affect their self-esteem, integration into a group or society may not occur as the individual desires.

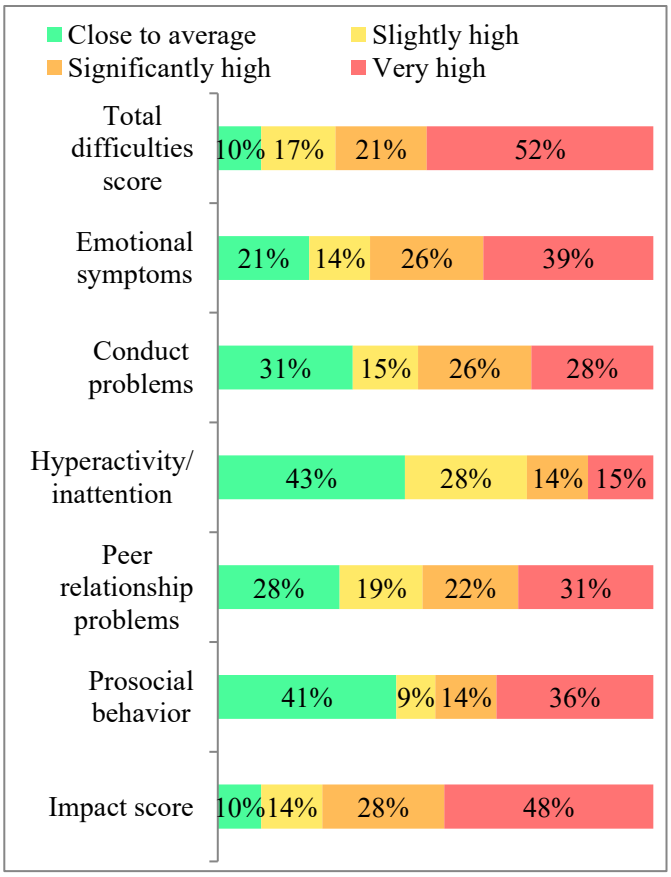
For the behavior disorder, only 28% of children would be eligible, while 72% would be ineligible although we cannot rule out the fact that the content a person interacts with through online platforms plays a significant role in the emergence or even exacerbation of inadequate behavior. For example, video games can incite violence and delinquent behaviors: at this age, not fully understanding the risks and consequences, a child may wonder what it would be like to enact in real life some of the actions they perform so easily in the game.

On the other hand, the videos they interact with can contain a wide range of messages, from jokes that can endanger others' health to experiments that can threaten their safety, as well as racism, harassment, tricks to defy the law, and illegal ways to make money. Without support from significant people, guidance, communication, and sharing, some behaviors can either be reproduced by them just to see if the desired effect is achieved or can influence their attitude and behavior through content and subliminal messages.

4.3. Strengths and Difficulties Questionnaire (SDQ)

The scoring for this instrument was performed by calculating the responses for each targeted area and placing them into the most recent classification, which, unlike the one used in the past that included only three categories (normal, borderline, abnormal), is divided into four distinct categories (close to average, slightly high, significantly high and very high), as follows:

Figure 5. The SDQ scores on each targeted area



The total difficulties score was calculated by summing the scores of the following areas: emotional symptoms, conduct problems, hyperactivity/inattention and peer relationship problems. The interpretation of the findings stresses out that a majority of the children (52%) display a significantly elevated level of difficulties, with merely 10% of the total cohort approach the average levels observed in individuals of the same age who do not manifest significant challenges in the mentioned areas.

The emotional symptoms area, which includes items associated with feelings of anxiety, complaints

of headaches, expressions of unhappiness, restlessness, and fear, revealed that merely 21% of children displayed emotionally related behaviors within proximity to the average. On the contrary, 26% of them scored significantly high in this domain. Moreover, a substantial 39% of the children obtained very high scores, indicating that they experience various worries and internal distress. These emotional challenges may become observable in their external behavior and have the potential to exert influence across all the fields of an individual's functionality.

In the context of conduct problems area, a relatively high percentage, represented by 31% children, would not exhibit problematic behaviors that significantly differ from what is typically considered developmentally appropriate for their age. However, a closer analysis show that at least 69% would struggle with some form of behavioral issues. Within this 69% facing behavioral issues, only 15% exhibit minor behavioral concerns, while 26% have moderate problems. Moreover, a notable 28% contend with disruptive behaviors, including but not limited to outbursts of anger, episodes of violence, causing harm to others, theft, disobedience and instances of deceit.

The presence of hyperactivity and inattention within the target group varies, ranging from mild to severe, with 57% of individuals displaying these symptoms. Contrarily, a significant percentage, specifically 43%, does not display signs of restlessness, motor or verbal agitation, poor concentration, or impulsive behavior.

If 28% do not encounter difficulties in interpersonal communication, the remaining 72% do not establish the anticipated peer relationships characteristic for their age group. This divergence may stem from a tendency towards solitary behavior and a preference for spending more time alone, a lack of popularity among their peers, experiences of harassment, or a preference for engaging in conversations and social interactions with adults.

The items related to prosocial behavior area received a significant percentage of 41% children displaying amiability, willingness to assist others, desires for sharing, and consideration for others' feelings, while 59% would struggle with prosocial behaviors. In the case of certain disabilities, this difficulty may be attributed to a reduced empathetic capacity.

The impact score was calculated by analyzing the responses to the questionnaire's supplement. The impact essentially measures the extent to which these difficulties that children face affect their family life, friendships, learning, or leisure activities. Furthermore, it assesses the extent to which these issues elicit sadness or disruption in students. Notably, 48% of the described children achieved markedly high impact scores, signifying that emotional, behavioral, hyperactivity, and peer relationship issues significantly affect their personal, familial, and academic well-being.

5. Discussions

The literature review indicates that contemporary society witnesses widespread use of social media among both typical children and teenagers, including those with disabilities. Its global prevalence spans diverse age groups, prompting a specific focus on children and adolescents aged 11-17 in this study. This demographic group is of particular interest due to their perceived vulnerability at this developmental stage, influenced by various factors affecting behavior and well-being.

Within this demographic group, social media usage is characterized by an access to diverse content types, including text-based, visual, video, audio, interactive, educational, news, and emotional support content. Among the 58 adolescents surveyed, the top five applications were TikTok, Facebook, YouTube, Messenger and video games. Notably, user-generated videos dominated the content viewed because of their diversity and varying explicitness.

While the use of social media offers distinct advantages (broader access to information, increased opportunities for interactions, faster communication), it also involves inherent risks (inappropriate content, cyberbully, unprotected online conversations, violent media content). When observed over time, these risks may be displayed as issues in areas such as health, psychological well-being, or behavioral conduct.

It is crucial to highlight that within the examined cohort, a noteworthy proportion engages with social media extensively. Specifically, while 10% of students, on average, use social media for less than 2 hours daily, our study reveals that 21% spend between 2 and 4 hours, the majority (42%) between 4 and 6 hours, and 17% between 6 and 8 hours. An alarming finding is that 10% report usage exceeding 8 hours. Given the considerable time invested online, it becomes imperative to inquire whether the content they interact with has a discernible association with their observed behavioral challenges.

On the contrary, video games offer an avenue for adolescents to explore and immerse themselves in a novel virtual environment. In this sphere, they can assume alter egos, shaping their appearance and skills to align with personal preferences. Despite the existence of educational games designed to enhance logical thinking, problem-solving, and social engagement, the gaming market predominantly features content with a focus on violence. This content holds particular charm for young boys, offering an appealing online multiplayer experience with friends.

Our perspective affirms that every aspect of a child's interaction contributes to internal and external changes. As evidenced by our findings, 64% of adolescents express at least one negative emotion, such as for instance, anger, when a friend makes a mistake during a video game. Meanwhile, 36% either refrain from playing video games completely or engage with content that does not emphasize violent themes.

Social media and video games offer immediate gratification for children and adolescents aged 11 to 17, including those with disabilities. These platforms serve as tools for seeking acceptance, enhancing self-esteem and self-image. However, they can also be avenues for cyberbully - a form of aggressive behavior that may persist over extended periods (Morgan, 2016), involving both victimization and perpetration.

Similarly, when the disability level ranges from moderate to severe, the susceptibility to negative influences is intensified. The prevalence of disruptive behaviors varies, influenced by the degree of intellectual disability (Molteno, 2001). In such cases, vulnerability may be pronounced, with individuals potentially lacking a developed Theory of Mind. Moreover, they may struggle to discern right from wrong or distinguish between reality and misinformation, particularly when exposed to information presented on the Internet.

In our study, the majority of adolescents with disabilities attempted to imitate inappropriate behavior observed on social media. Prolonged use of virtual apps was associated with observable changes in their behavior. These adolescents encountered challenges in various domains, including emotional well-being, behavior, peer relationships, prosocial behavior, and hyperactivity. While acknowledging that some difficulties may stem from the diagnosis, our results suggest that social media use may also amplify certain challenges for this population.

6. Conclusions

Behavioral challenges often emerge in children and adolescents aged between 11 and 17 years old. These challenges are observable not only in the typical population but also in those with disabilities. It is crucial for us to examine the potential causes and contributing factors to better assist and support this age group. Identifying these causes is of primary importance because, over time, children may struggle with internal issues and exhibit external problems, including disruptive behaviors in various settings such as school or home.

Both the existing literature and our study share the common goal of exploring a potential link between behavioral challenges in this specific cohort and their engagement with social media - an omnipresent aspect of contemporary life. Instead of surveying the children and adolescents with special needs directly, we directed our investigations to their parents, caregivers, and teachers. These individuals were well-positioned to provide objective responses based on longitudinal observations.

We discovered that most participants believe social media usage can influence challenging behaviors in teens, while a minority asserts that disruptive behaviors occur solely due to diagnostic specifications. Moreover, our results indicate that the majority of these students face challenges in various domains, including conduct problems. Some may even qualify for opposition defiant behavior disorder or a conduct disorder, and interestingly, all these individuals were active users of social media.

It is essential to acknowledge that a behavior can be influenced by one or multiple factors. Challenging behaviors may arise from low verbal skills, a limited capacity to understand others, or personal emotions, as well as the interpretations of certain events. Through the use of social media and engagement in video games, children may also be seeking various objectives, whether it be acceptance, friendships, knowledge, freedom of expression, or the empowerment of decision-making.

While online access should not be prohibited, it is crucial for parents and specialists to analyze and manage it. This emphasizes the significance of a multidisciplinary team, comprising specialists in the field, as well as the child's parents or caregivers. Transforming challenging behavior can be a complex process, but with dedication and consistency from everyone involved, positive changes can occur over time.

Parents play a pivotal role and should actively contribute by monitoring online activity, limiting access to potentially harmful sites and apps, imposing time constraints and attentively addressing the emotional needs of their children. With support from key figures, along with strategies and therapies, children and adolescents can work towards diminishing challenging behaviors, ultimately improving their relationships, well-being, and overall quality of life.

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