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A Narrative Review: The Influence of Screen Using on Mental Health of People with Disability

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Abstract: This narrative review synthesizes current evidence (2015-2024) on the dual impact of screen use on the mental health of people with disabilities. While excessive screen time and cybervictimization may exacerbate anxiety, depression, and social isolation, moderated and purposeful screen engagement--particularly through adaptive gaming, virtual social platforms, and telehealth interventions--demonstrates therapeutic potential. Key findings reveal that screen-based interventions can alleviate loneliness, enhance cognitive and social skills, and foster identity reconstruction through inclusive online discourse. The use of electronic screens can also provide assistance for the mental health intervention of the disabled. Electronic screens are excellent carriers of information such as pictures and texts, and also a good way for communication. However, risks such as sleep disruption, impulsivity, and digital exclusion persist, especially among individuals with intellectual or developmental disabilities. The review highlights the need for culturally sensitive, longitudinal research to optimize screen-mediated mental health support while addressing accessibility and ethical challenges.

Keywords: Screen use, Mental health, Disability, Digital intervention

1. Introduction

With the continuous advancement of mental health research, mental health has been widely recognized as a critical issue concerning human well-being. This holds equally true for people with disabilities. Research indicates that persons with disabilities face significant mental health challenges compared to those without disabilities. They are more likely to experience mental health problems, including depression, anxiety, and distress [1]. This disparity is particularly pronounced for individuals with severe disabilities. The mental health burden may be attributed to psychological stress associated with the disability, medication effects, and barriers in accessing healthcare. People with learning disabilities are especially vulnerable, showing higher rates of mental health issues across various measures.

Research on the mental health of people with disabilities has yielded some findings, but in the internet era, studies on how screen use affects their mental health remain in the early stages. There is a lack of systematic discourse on screen use by people with disabilities. Mental health issues significantly impact people with disabilities, with stress and lack of social support increasing the likelihood of mental illness and behavioral problems [2]. Employment factors also play a role, as underemployment has a more severe negative effect on the mental health of individuals with disabilities compared to those without [3]. Research on the effects of video games and screen use on

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mental health reveals a complex relationship. While excessive gaming can exacerbate psychiatric disorders like anxiety and depression [4], moderate gaming can reduce stress and enhance cognitive skills. Video games may even have therapeutic potential, aiding in social skill training and rapport-building [5]. However, concerns persist about the impact of excessive screen time, social media, and gaming on mental well-being, potentially contributing to anxiety, depression, and social isolation [6]. Further research is needed to clarify these relationships and explore therapeutic applications especially for people with disabilities.

This study employs a literature review approach to analyze the relationship between mental health and screen use among people with disabilities. By synthesizing relevant literature, it examines the extent to which screen use affects their mental health and identifies the underlying mechanisms. The selected literature spans a ten-year period (2015-2024), with research output increasing over time. The studies primarily focus on screen-related behaviors--such as social media and gaming--and their psychological impact on individuals with disabilities. Through a narrative review of these studies, this paper summarizes the multifaceted factors influencing screen use and elucidates its mechanisms of effect on mental health.

2. Screen use's impact on mental health in people with disabilities

The literature review reveals that existing research predominantly explores specific aspects of screen use's impact on mental health in people with disabilities. Based on an analysis of influencing factors, the findings can be categorized into two main types. Positive effects: Screen use may contribute to improved mental well-being or serve as a potential intervention tool. Negative effects: Excessive or problematic screen use could be a significant risk factor for mental health challenges in this population. This classification provides a framework for understanding the dual role of screen use in shaping the mental health of individuals with disabilities.

2.1. Positive effects

Screen use is conducive to improving the mental health conditions of the disabled, can effectively fight against depression, anxiety and other psychological problems, and help the disabled to reconstruct social cognition. Adolescents with disabilities experience alarmingly higher rates of depression and isolation than peers without disabilities. By using a specially designed virtual social game to intervene with disabled children from children's hospitals, the team found that these adolescents experienced significantly lower levels of loneliness. This result suggests that a brief virtual social games group program could be valuable for potentially improving mental health among adolescents with physical disabilities. Participants built friendships with peers and other players on the web, using low-cost consumer equipment that provided easy access and strong scale-up potential.[7] A Swiss study found that the use of the Internet by people with disabilities was associated with improved well-being, better mental health and more beneficial health behaviours. These Internet users with disabilities also undertook some form of physical activity or sport more often and fewer smoked cigarettes or consumed alcohol excessively. These indicators have all been shown to correlate with the level of mental health of persons with disabilities.[8] To use electronic equipment, especially adaptive game equipment can also help disabled individuals better finish the work, achieve a better job. In a study in the US in 2024, over 75% of participants reported subjective benefits of adaptive video gaming for their employment. Adaptive play improved their mental health, physical function and cognition.[9] The mental health of serious games for the disabled also provides an easy to get intervention. Norwegian children aged 6 to 13 with intellectual disabilities were interested in the serious game "Broodles", and the overall positivity in the format, content and objectives, including validation of emotions and recognition, was reported after use. [10] Language is

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a means of classification that requires conceptual clarity to accurately examine the experiences of diverse groups and cultures. For persons with disabilities, disability-related terms are also related to their identity as persons with disabilities and have an impact on their mental health from the perspective of social psychology. Using social media to appeal can effectively change the biassed language status quo of persons with disabilities, help them build their own multiple identities, and help them have a more equal community identity and a more sound psychological personality.[11]

Screen use can also provide some auxiliary help to improve the mental health level of persons with disabilities, and this auxiliary function is often reflected in the mental health intervention implemented by professional cares. During the COVID-19 stay at home, online communication provides a bridge between professional carers and people with intellectual disabilities. Although the quality of this communication and its ability to meet the needs of patients with ID have declined compared to face-to-face communication, service providers for people with ID could still benefit from the use of online and distal methods by increasing their responsiveness.[12] A survey conducted in New York City in 2016 also proved that the technology and social media to promote intellectual and/or developmental disabilities (I/DD) have played an important role in the process of participating in health care, Enabling individuals with disabilities to promote self-determination in the healthcare environment improves their health outcomes and satisfaction. However, the study also found that this particular demographic has a low acceptance of new technology, with only 10 percent of respondents reporting owning a smartphone. This suggests there is a threshold for screen use for patients with I/DD.[13] and some intervention measures will use screens tools instead of intervention methods of psychological Health intervention. For example, art therapy groups can help Learning Disabled (LD) adults to counter social isolation, providing opportunities to creatively explore challenges within a therapeutic relationship. Using the social media platform WhatsApp, the group was able to create an online group on top of the offline base and gradually transition to online art therapy. Social media provides a barrier-free way for LD patients to participate in Art therapy groups, which allows Learning Disabled clients to remain included, connected and supported. This therapy can provide LD patients with more stable group treatment in major global crises, such as the novel coronavirus epidemic, and alleviate their loneliness and social isolation to a certain extent. [14] Similarly, screen use can also have a tendency to crime or for psychological counseling for the disabled. In a study conducted in France, fifteen mentally retarded patients with criminal backgrounds or tendencies towards sexual violence received psychotherapy administered through education. The therapeutic strategy is adapted to the cognitive abilities, attentional abilities and verbal comprehension of mentally retarded subjects. Electronic devices, such as educational tools "that told" provide a more stable mediator for this treatment strategy, helping the treated with expression of their sexuality, tolerance, openness to others and the subjectivation process of creating sexual relationships and romantic and consensual sex. [15]Electronic equipment can reflect the mental health of disabled persons, so the psychological problems of diagnosis for the disabled also play a role. In India, researchers created the START app to test patients for potential neurodevelopmental disorders. 48 autistic, 43 intellectually disabled and 40 non-autistic typically developing children were included in the study, all of whom were between the ages of 2 and 7. START completed the classification of these three groups with 78 percent accuracy, demonstrating the program's potential for diagnosing psychological problems. The use of this procedure will provide patients with neurodevelopmental disorders in low-resource areas with more accessible diagnoses and timely psychological interventions. [16]

2.2. Negative effects

Screen use may also have a negative impact on the mental health of people with disabilities, largely driven by inappropriate use and social media use. People with disabilities are more likely to have

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psychological problems than normal people. According to statistics, youth with disabilities are five times more likely to experience anxiety or depression than peers without disabilities. A cross-sectional secondary analysis of the 2019-2020 NSCH was conducted and included youth 6-17 years old who were currently receiving special education services. The study found that adequate night's sleep and limited screen time were significantly associated with anxiety and depression among adolescents with disabilities, And there may be compounding benefits in reducing anxiety and depression in adolescents.[17] Another study discusses the night sleep with the use of the relationship between the screen. Linear regression shows that among children aged 6 to 15 with developmental disabilities, for every additional 9.17 min of screen time per day, sleep was reduced by 1 min.[18] Impulsivity is associated with problematic internet use in a study among college students with disabilities. The more problematic internet use, the greater the tendency for impulsivity, which is also influenced by conscientiousness and social functioning problems. Eventually, it may cause psychological distress to disabled college students.[19] is an umbrella term for negative web--based experiences. A study in the United Kingdom found that people with disabilities, who may experience harassment both offline and on the web when using social media, are one of the main victimized groups of Cybervictimization. This victimization is associated with negative online experiences of persons with disabilities, most commonly from. Negative Internet experiences will have a negative impact on the mindset of people with disabilities to manage their own health. It is not conducive to respondents maintaining their lifestyle such as exercise, diet, avoiding triggers, and avoiding excessive smoking and alcohol consumption. This problem is widespread among persons with disabilities. Data from 152 participants revealed that cybervictimization affected nearly 1 in every 2 adults with chronic conditions (69/152, 45.4%). Most victims (53/69, 77%) had disabilities. If not addressed or addressed effectively, this cyber abuse is likely to evolve into a public health problem.[20]

3. Discussion

After an analysis of the literature from 2015 to 2024, it can be found that the impact of screen use on the mental health of persons with disabilities, that is, the positive or negative impact of screen use on persons with disabilities, is related to the screen use of persons with disabilities and their symptoms and personal lives. Examples of situations that can play a positive role include the relief of social isolation and loneliness, the positive emotional guidance of adaptive games for disabled people to participate in work, the stigmatization of language used by disabled people to help disabled people construct multiple identities that are not limited to disabled people, and the role played in a variety of psychological interventions. Negative effects on people with disabilities generally include the impact of cyberaggression on self-management of health, impulsivity due to problematic internet use, and an increased likelihood of anxiety or depression due to sleep deprivation. A comprehensive exploration of various factors over the past decade has summarized the following two characteristics.

For people with disabilities, screen use can be an important channel for mental health interventions, as mentioned earlier. Screen use can exist either as an intervention subject or as an adjunct to therapeutic strategies. When acting as the subject of intervention, the play behavior will play a more obvious role. Both serious play and adaptive play have been shown to have positive effects on mental health interventions for persons with disabilities. Using games can improve the ability of people with disabilities to interact with the outside world, which is very important for some people with disabilities or developmental disabilities. Some pleasant game behaviors can also adjust the anxiety and depression of the disabled in time, and help them better focus on life and work. When used as auxiliary devices, the active influence of screen use has not been well reflected. For example, the treatment group that switched from offline to online during the epidemic period did not report better intervention effects when using electronic devices. However, the use of electronic devices can reduce

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the cost of intervention implementation and improve the efficiency. The use of social media or communication software can better alleviate the loneliness of the disabled. A few experiments have also reported better intervention outcomes when using electronic devices, such as psychological counseling for disabled people with violent criminal backgrounds or tendencies, but it is difficult to say exactly whether this effect is widespread due to the small sample size.

Language about people with disabilities has become one of the new research fields in the field of rehabilitation psychology. The language used in relation to persons with disabilities has changed over a longer period of time. Modern disability models, such as the minority and diversity models, position disability as an aspect of identity, much like race, gender, or sexual orientation. The minority and diversity models accept and even encourage identity-first language (i.e. “disabled person”) as an expression of pride in a collective disability community identity.[21] This too, a single identity is likely to be conducive to disabled people having a healthy and sound psychological personality. As an open voice channel, social media can become an important channel to change the biased and single discourse system of the disabled. The #SaytheWord campaign, proposed by E. E. Andrews et al., is a social media campaign calling for acceptance of disability identity. This language shift is also related to online abuse of people with disabilities. The monolithic community identity of persons with disabilities is itself isolating them from the society of the able-bodied and may lead to the increase in discriminatory speech as well as isolation of persons with disabilities.

4. Conclusion

In summary, the impact of screen use on the mental health of individuals with disabilities requires comprehensive consideration of their personal conditions and usage habits. Among all the discussed effects, mental health interventions for people with disabilities have received significant attention. A variety of intervention methods—including those that treat screen use as the primary intervention tool or as an auxiliary device for therapeutic approaches—are continually being explored and implemented in practice.

The linguistic environment surrounding disability has also emerged as an important factor in alleviating social pressures faced by individuals with disabilities, with online social media serving as one of the most prominent means of reshaping disability-related discourse. In the future, further research will help clarify how screen use affects the mental health of individuals with disabilities. Insights gained from exploring these mechanisms can be applied to interventions, thereby advancing care and support for people with disabilities.

This study has several limitations. The sample coverage is not sufficiently broad, with most of the patient characteristics focusing on adolescents with disabilities, individuals with intellectual disabilities, psychiatric disabilities, and developmental disorders. Other patient groups, such as elderly individuals with disabilities and those with severe physical disabilities, were not addressed in the included studies, and there is a lack of intervention programs or research methods specifically designed for these populations. Additionally, when exploring certain influencing factors, there were insufficient research findings to exclude the impact of individual disability-related factors on mental health through symptom manifestation. Further and more refined studies on people with disabilities are needed to analyze these factors in greater depth.

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