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CHILDREN ARE IN ALICE'S WONDERLAND: IMPLICATIONS OF INTERNET USE ON PRESCHOOLERS

Annotation. The increasing prevalence of internet use among preschool-aged children brings forth important implications for their developmental domains. In cognitive development, the internet offers educational content that can stimulate learning and critical thinking; yet excessive screen time may hinder attention and language skills. Socially, online interactions provide opportunities for communication but may lack the nuances of face-to-face relationships, potentially affecting empathy and social cues. Emotionally, exposure to digital content can evoke varied responses, influencing emotional regulation and empathy development. Physically, prolonged screen time may lead to sedentary behavior and impact motor skills development. The study aims to discuss the contributions of internet use among preschoolers. By understanding the implications of internet use among preschoolers, caregivers can navigate digital landscapes effectively, promoting holistic development while safeguarding children's well-being.

Key words: Internet, children, risks, domains, development.

Анотація. Зростаюча поширеність використання Інтернету серед дітей дошкільного віку має важливі наслідки для сфери їхнього розвитку. У когнітивному розвитку Інтернет пропонує навчальний контент, який може стимулювати навчання та критичне мислення; але надмірний час перед екраном

може перешкоджати концентрації уваги та мовним навичкам. У соціальному плані онлайн-взаємодія надає можливості для спілкування, але може не мати нюансів особистих стосунків, що потенційно впливає на емпатію та соціальні сигнали. В емоційному плані вплив цифрового контенту може викликати різні реакції, впливаючи на емоційну регуляцію та розвиток емпатії. Фізично тривалий час перед екраном може призвести до малорухомості та вплинути на розвиток моторики. Метою дослідження є обговорення впливу використання Інтернету серед дошкільнят. Розуміючи наслідки використання Інтернету серед дітей дошкільного віку, вихователі можуть ефективно орієнтуватися в цифровому ландшафті, сприяючи цілісному розвитку, одночасно захищаючи благополуччя дітей.

Ключові слова: Інтернет, діти, ризики, домени, розвиток

Introduction. In today's digital age, the internet has become an integral part of daily life, offering boundless opportunities for learning, entertainment, and communication. However, as the internet permeates nearly every aspect of society, concerns arise regarding its impact on the developmental domains of preschool-aged children. This article delves into the implications of internet use among preschoolers and its effects on their cognitive, social, emotional, and physical development. Information technology, especially the internet, offers tremendous opportunities not only in education but in many fields. The internet is becoming a virtual library containing unlimited information that anyone can access from anywhere. People can plan their holidays, get health advice, meet their friends, or play games online [19]. Children live in a period where Internet use is intense. Children who have the Internet can perceive the Internet as a natural part and indispensable element of their lives. It was claimed that the use of the Internet would positively impact children, as it allows them to communicate, learn new things, and has a lot of entertainment [18] while the main risks of the Internet are a violation of children's rights, their general vulnerability, and many others [19].

Risks of the Internet. While the Internet offers many opportunities, from entertainment to information, from various other riches of social life to the emergence of new business opportunities in economic life, it has also caused various risks and harms, especially privacy and security concerns [25]. Internet risks may include access to false and/or harmful information, cyberbullying, harmful software, pornography/child abuse/prostitution, violence, etc. Internet risks were divided into two: technology-oriented and non-technology-oriented risks. Internet overuse among children may lead to an increase in sedentary habits and health problems such as the following: obesity, poor posture, psychological disturbances, and eye disorders [4; 5; 7; 20; 25].

Negative Effects of the Internet on Children. Just like in the real world, the virtual environment also poses some risks for children and teenagers. When children go on the Internet, they often trust people they do not know, and share their personal information, and as a result, they face three important risks such as peer abuse, sexual abuse, and child pornography [1]. According to a study conducted in the USA, 75% of children share personal information about their families or themselves with people they do not know voluntarily and without any concern, and they may believe the promise that they will be given something in return for this information [8]. In addition, children who use the Internet may experience some physical problems such as eating disorders, sleep disorders, musculoskeletal diseases, and restrictions in physical activity; They may also encounter some psychological and neurological problems such as attention deficit, depression, anxiety, social phobia, and autistic behaviors.

Effects of the internet on Cognitive Development of children. Internet access may affect a range of skills, including academic achievement and cognitive skills. Finally, internet access may affect cognitive skills by exposing children to online activities that alter cognitive processes [14]. The internet can be a rich source of educational content, offering interactive games, videos, and applications designed to stimulate cognitive development. Preschoolers can engage in activities that promote literacy, numeracy, problem-solving, and critical thinking skills. However, excessive screen time and passive consumption of content may hinder cognitive development,

affecting attention span, memory retention, and language acquisition. Young brains are the brains most exposed to the effects of digital technology and also the most sensitive to these effects [21]. That is, there are critical periods in cognitive development to acquire certain skills. When the time spent with the computer replaces important cognitive activities such as children's communication with those around them, dreaming, and focusing attention on internal processes, it may be very difficult, and sometimes even impossible, to compensate for these acquired skills [6]. Research findings show that children who use the Internet more often show higher success in tests measuring reading success [13]. On the other hand, writing skills of shortened words and sentences are preferred by young people in Internet and mobile phone communication; there are also studies arguing that technology jargon, which has moved away from the language of daily use and become specific to young people, negatively affects language usage skills in daily life [10].

Effects of the internet on the Social Development of children. Internet use among preschoolers can influence social development by facilitating virtual interactions with peers and family members. Online platforms provide opportunities for communication, collaboration, and socialization, fostering the development of social skills and digital literacy. However, the lack of face-to-face interaction may impede the development of empathy, emotional intelligence, and social cues essential for navigating real-world relationships. Stating that the Internet is an important tool in increasing social participation and contributing to individual well-being [24]. It is also possible to encounter studies suggesting that, contrary to what everyone thinks, Internet use does not isolate children and adolescents but strengthens socialization. It is also stated that social interaction and self-confidence increase as Internet use increases [15] and that as children use the Internet, their friends also use it, so the Internet can turn into a simple communication tool rather than a harmful tool [11].

Effects of the internet on the Emotional Development of children. The Internet's vast array of content, including videos, games, and social media, can evoke a range of emotional responses in preschoolers. While engaging with age-appropriate content can elicit joy, curiosity, and wonder, exposure to inappropriate or distressing

material may lead to confusion, anxiety, or desensitization. Moreover, the anonymity and detachment afforded by online interactions may hinder the development of empathy and emotional regulation skills. One of the factors that affect psycho social development in parallel with internet and computer use is computer games. It was observed children playing in their natural environments, state that the interactions of children who spend time with computer games with their peers may decrease or the quality of interaction may decrease [2]. On the other hand, multiplayer strategy games can also contribute to individuals taking on different roles and perceiving the identities of those roles [23]. According to the study, when children's offline gaming, watching television, and reading habits are taken into consideration; It is observed that girls tend to play games with well-known individuals in well-known environments, away from aggression, even in offline environments [10]. In summary, the effect of games on individuals is related to the individual characteristics and gender of the player as well as the content of the game.

Effects of the internet on the Physical Development of children. Excessive screen time and sedentary internet use can have adverse effects on the physical development of preschoolers. Internet overuse has been associated with the development of cumulative musculoskeletal disorders (MSDs) and computer vision syndrome (CVS). MSDs are often characterized by muscle fatigue and discomfort, leading to pain [9; 17]. Prolonged periods of sitting and staring at screens may contribute to poor posture, decreased muscle tone, and increased risk of obesity. Moreover, excessive screen time may displace opportunities for active play, outdoor exploration, and physical exercise essential for promoting motor skills, coordination, and overall health. Long-term use of computers and the Internet can cause some physiological problems. Apart from this, radiation waves emitted from computers may affect children and adolescents more seriously than adults. Working with a large sample in Turkey, it was found that the most common physiological problems in a family due to the use of information and communication technologies are eye fatigue/eye redness; states that back/neck pain, headache, joint/muscle pain, fatigue, and insomnia. The same study revealed that as the duration and frequency of

individuals' Internet use increases, physiological problems also increase. While previous studies focused mainly on time spent in front of the television, in recent years computer and Internet use have become among the primary activities that keep the body inactive [16]. Even studies conducted on adults reveal that being physically inactive is associated with weight gain, and the importance of physical movement for ideal weight is emphasized [3;12].

Parental Guidance and Digital Literacy. Parental involvement and guidance are critical in mitigating the potential negative effects of internet use among preschoolers. Establishing clear rules and boundaries for screen time, selecting age-appropriate content, and co-viewing and co-engaging with children during internet use can enhance the quality of digital experiences and promote responsible online behavior. Moreover, fostering digital literacy skills empowers parents to navigate the complexities of the digital landscape, enabling them to make informed decisions about internet use and safeguarding children from online risks.

Conclusions and Recommendations. As the internet continues to shape the lives of preschoolers, it is essential to recognize its implications for their developmental domains. While the internet offers vast opportunities for learning and exploration, its effects on cognitive, social, emotional, and physical development warrant careful consideration. By fostering a balanced approach to internet use, promoting digital literacy, and providing supportive guidance, parents, educators, and caregivers can harness the potential of the internet to enrich preschoolers' development while mitigating potential risks. Families have certain duties and responsibilities so that their children can use the Internet consciously, safely, and effectively. In other words, both families and relevant Internet actors have important duties in this regard. These duties can be summarized as recommendations regarding the implications of internet use among preschoolers in their developmental domains:

Limit Screen Time: Encourage parents and caregivers to set limits on preschoolers' screen time, including time spent on the internet and other digital devices. The American Academy of Pediatrics recommends no more than one hour of high-quality programming per day for children aged 2 to 5 years.

Select Age-Appropriate Content: Encourage parents to choose age-appropriate and educational content for preschoolers when they are online. Websites, apps, and games designed specifically for young children can provide enriching experiences that support their developmental needs.

Co-Viewing and Co-Engaging: Encourage parents to actively engage with preschoolers during their internet use. Co-viewing and co-engaging with children allows parents to monitor their online activities, discuss content, and reinforce positive behaviors and values.

Promote Balanced Activities: Encourage a balance between online and offline activities. Encourage parents to provide opportunities for active play, outdoor exploration, and hands-on experiences that promote physical, social, and creative development alongside internet use.

Teach Digital Literacy: Educate parents and caregivers about the importance of teaching digital literacy skills to preschoolers. Teach children about online safety, privacy, and responsible digital citizenship from an early age, empowering them to navigate the digital world safely and responsibly.

Create Safe Digital Spaces: Encourage parents to create safe digital environments for preschoolers. Utilize parental controls and filtering software to restrict access to inappropriate content and websites, and monitor children's online interactions to ensure their safety.

Model Healthy Digital Habits: Parents and caregivers should serve as positive role models for preschoolers by demonstrating healthy digital habits themselves. Limiting personal screen time, prioritizing face-to-face interactions, and engaging in meaningful activities offline can set a positive example for children to follow.

Encourage Critical Thinking: Encourage parents to foster critical thinking skills in preschoolers when engaging with online content. Encourage children to ask questions, evaluate information, and think critically about the content they encounter online, empowering them to make informed decisions and discern between credible and unreliable sources.

By implementing these recommendations, parents and caregivers can help preschoolers navigate the digital landscape responsibly while promoting holistic development across cognitive, social, emotional, and physical domains.

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