

Risk Factors Affecting Internet Use in Adolescents: A Literature Review

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ABSTRACT

In today's time, people spend more time on the Internet for long hours due to the increasing number of exciting Internet applications and the convenience of life provided by such applications. Internet use can be at risk if its use is excessive and can cause dependence and addiction. Suppose internet users have experienced addiction or dependence. In that case, it can cause risk factors that are harmful to mental and physical health, poor school achievement, relationships with family/parents that are less harmonious, and excessive household income conditions. Therefore, it is essential to understand the risk factors arising from excessive internet use. So as to raise awareness about health issues currently affecting young people in vulnerable groups. The literature review of this article was obtained from the online databases Science Direct, SpringerLink, ProQuest, EBSCO, and Pubmed in the publication year 2015-2020. Evidence shows that most research articles explain a lot about the risk factors for someone experiencing excessive internet use due to mental health problems and relationship problems with family/parents that are negative. Risk factors that influence Internet use in adolescents have been described in many previous studies. However, little is known about how many risk factors influence internet use in teens. Therefore, this article will provide a number of critical gaps in the evidence base to be used as a source of information on the development of appropriate interventions and can provide a preventive strategy to reduce excessive Internet use in adolescents.

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1. Introduction

Today, the use of the Internet has become an essential thing in our lives, and it is estimated that the number of Internet users has reached 3 billion worldwide. About 26% of internet users are between the ages of 15 and 24, and internet usage is increasing dramatically in the younger generation (Choi et al., 2017). The rapid development of the internet has affected the younger generation, such as teenagers. Adolescence is a vital period in human development, as it is the period

between childhood and adulthood that involves substantial physical growth and brain development. The increasing use of the internet has affected the lives of adolescents, such as behaviors that can be damaging psychosocial and physical impacts because adolescence is characterized by emotional and psychological instability (Kwon et al., 2020).

Based on APJII survey results (Asosiasi et al. Indonesia), In 2018, the penetration of internet users aged 10-14 years who use the internet was 66.2%, and those aged 15-19 years who use the internet 91% (APJII, 2019). They access the Internet for three main reasons: entertainment, socialization, and information retrieval (Kristianto, 2017). Active internet users prefer two online activities, online games and social networks, which can make them experience negative consequences and addiction (Lu & Yeo, 2015).

Internet addiction or excessive use of the Internet refers to the inability to control Internet use that leads to a person experiencing psychological, social, school, and work difficulties in one's life (Jiang et al., 2018). Internet addiction among teenagers has become a severe public health issue. In addition, several previous studies have consistently documented the adverse risk of Internet addiction on adolescent physical and mental health outcomes. Research studies conducted by Li et al. (2017). Explain the risk factors that make adolescents experience problems with excessive internet use due to poor parent-child relationships and high parent-to-parent conflict. In the context of schools, it shows that poor teacher-student relationships poor student-student relationships increase the risk of adolescents experiencing internet addiction.

In general, it can be said that Internet addiction can be interpreted as "addiction to non-chemical behavior involving human-machine interaction." In addition, Internet abuse can interfere with daily functioning and is considered problematic later in life, which will be addictive, thus associated with adolescent loss of control, difficulties and withdrawal symptoms, disorders, and conflicts around internet use (e.g. with caregivers or peers). In this issue, there needs to be a better understanding of the risk factors that make adolescents experience internet addiction so that this explanation can be used to inform the prevention and treatment of adolescent internet addiction.

2. Materials and Methods

The current literature review is guided by the methodological framework proposed by Arksey and O'Malley (2005). The framework outlines a five-stage approach, including identifying research questions, searching for relevant studies, choosing a study, mapping data, and compiling, summarizing, and reporting results.

Identifying Research Questions (Stage 1)

To guide the current scoping review, we focused on the following main research questions: "Do risk factors such as school achievement, parental relationships, physical health, mental health, and family economic status income influence adolescent Internet overuse?"

Identifying Relevant Studies (Phase 2)

We conducted a coverage review of risk factors affecting adolescent Internet use. We used to search through Science Direct, SpringerLink, ProQuest, EBSCO, and Pubmed for review. Literature publications between 2015 and 2020. Our used subtitles search keywords were 'internet use,' 'risk factors,' and 'teenagers.' When completed, a search is performed from each database and then

documented, and references are imported into a particular database folder where duplicates are removed.

Choosing a Study (Stage 3)

A total of 3,260 articles were identified through the database site by looking at inclusion and exclusion criteria based on sub-discipline type, sub-heading, year, language, and content. Furthermore, filtering was carried out using titles and abstracts with the results of 149 articles. From the results of 149 study articles, 75 articles were issued because (1) they did not match the title, (2) the articles were published not in English, then the remaining 74 articles remained to be assessed for feasibility. Furthermore, the article was reissued after closer examination because article (1) did not specifically discuss the issue of risk factors affecting internet use in adolescents and (2) duplicate studies. Finally, this coverage review includes 23 articles focused on risk factors affecting adolescent Internet use and flow charts used as a guide in reporting this literature review.

Map data (Stage 4)

The author collects and sorts important information from selected articles. The data to be extracted from several published research literature includes standard information such as author, year of publication, study title, country, sample size, age, type of article, and primary goals/objectives that the author has collected.

Compile, summarize, and report results (Stage 5)

The author synthesizes the data according to a predetermined research question. Once the data is collected, the authors compile, summarize, and report the results of 23 relevant articles. This process is carried out according to the five stages of Arskey and O'Malley.

3. Result and Discussion

Twenty-three articles were included in the literature review. This article includes eight quantitative studies, nine cross-sectional studies, one descriptive correlation study, one scoping review, one paper, one meta-analysis, one literature review, and one longitudinal randomized control trial. It is known that research studies came from 12 countries. Spain, China, Korea, and Turkey are the countries that have the most research studies to review the literature on this issue. Some studies measured adolescents in school, others measured adolescents through clinical records reported by their research studies to assess risk factors affecting internet use in adolescents. Based on the results of the literature review, most studies shed light on the problem of mental health risk factors and adverse family/parental relationship problems.

Discussion

Risk factors are traits or influences that may precede and be significantly associated with a higher likelihood of adverse effects. These factors may be the tendency of adolescents to excessive internet use, called internet addiction (IA). The use of the internet, as well as other online activities, can be addictive. The rapid development of the internet has affected the younger generation, such as teenagers. We need to understand that during the adolescent stage, young individuals in this age group undergo physical, nervous, psychological, and social development. Related to the hormonal and neurodevelopmental that occur during adolescence, psychosocial and emotional changes, including increased cognitive and intellectual capacity, also develop. Reasoning skills and logical and moral

thinking are also strongly formed along with thinking and the ability to make rational judgments. However, changes vary among factors that can affect individuals both from within the individual and from outside (the environment).

For this reason, adolescents are more susceptible to addiction. Addiction can occur at any age and in any social condition. The literature review identified risk factors contributing to excessive internet use among adolescents, including psychological (mental health), physical health, school achievement, relationships with family/parents, and income and family economic status.

a. Psychological risk factors (mental health)

Results of research conducted by (Malak et al., 2017) revealed that students who attend school in Jordan have a high prevalence of anxiety and depression because school students aged 12-18 years experience many developmental changes that lead them to experience social and psychological problems. Therefore, the use of the internet is considered an environment that meets all their needs and forgets the problems they experience, causing them to experience internet addiction. Psychological conditions that often accompany internet addiction are attention deficit and hyperactivity disorder (ADHD), major depressive disorder (MDD), anxiety, and impulsivity. A systematic review of 20 previously described research articles on pathological internet use reported that 100% of articles claimed that pathological internet use was associated with ADHD symptoms, and 75% of articles stated internet use was associated with MDD (Hyun et al., 2015).

b. Physical health risk factors

With the advancement of technology used on mobile devices and internet-based applications, the use of smartphones has increased sharply in recent years. Smartphones have become essential devices in everyday life; However, the benefits of the technology cause adverse side effects if used excessively (Kim et al., 2018). Such can cause headaches and pain in the muscles of the face and neck and the spine. They also experience eye pain and blurred vision. The most common problem is carpal tunnel syndrome, which damages the nerves of the hand because it often works long-term on the computer. Human reactions to increased intensity of electromagnetic fields can mainly cause damage to the immune, endocrine, and central nervous systems, which support essential signaling regulatory functions to keep the body in a state of homeostasis (Tikhonov & Bogoslovskii, 2015).

c. Risk factors for family relationships / parental relationships

The family plays a significant role in sharing affection, overcoming problems that one family member is experiencing, and shaping the character of each individual in the family. Research shows that positive parenting can reduce the likelihood of internet addiction. Conversely, interparental conflict and lack of parental supervision of internet use have been shown to predict internet addiction (Sebre et al., 2020). Research conducted by (Sela et al., 2020) found that a dysfunctional, hostile family environment can push adolescents to internet use problem behavior (PIU). In addition, a hostile family environment correlated with higher depression among adolescents and with a greater Fear of Missing Out (FoMO), which in turn increased PIU.

d. Risk factors for learning achievement in school,

Most children and teenagers spend their time attending school. The information obtained shows that school children often use smartphones outside school hours, and usually, students are not allowed to bring smartphones to school. Lwin, Miyazaki, Stanaland, and Lee (2018) state that children access the Internet for three main reasons: entertainment, socialization, and information retrieval (Kristianto, 2017). Therefore, children and adolescents prefer to use the internet because the internet has two online activities, such as online games and social networks, that can make them experience internet use disorders (IUDs). Internet use disorder (IUD) is related to school factors such as interaction with classmates, learning behavior, and academic achievement. IUDs are associated with poor academic performance caused by students failing to control their internet usage behavior and spending more time online and online gaming. These students also tend to procrastinate on their schoolwork, resulting in low grades (Kindt et al., 2019). Gencer and Koc (2012) state that Students with poor academic performance may experience stressors from school and low self-esteem. Therefore, the internet can be used as a way to escape these stressors and derive satisfaction and pleasure by fulfilling their potential.

e. Risk factors of family economic income status

Parents of teenagers with high per year, per capita household incomes have a higher likelihood of internet addiction (Wu et al., 2016). However, a study conducted by (Shek Yu, 2012) revealed that family economic status had no significant effect on addictive behaviors associated with internet use. Other research studies conducted by (Malak et al., 2017) revealed that low family income has high IA level teenagers. Families with high incomes have computers and internet connection services at home (Ak et al., 2013). This is because adolescent families are convinced that the Internet can provide many benefits for their children, such as helping with academic tasks and homework (Hawi, 2012). However, they do not acknowledge any unwanted effects, such as internet addiction (IA). Results also showed an association between family income and IA, which is similar to previous reports (Ak et al., 2013) that explained that family income was considered a risk factor for IA.

4. Conclusion

Overall, these studies contribute to improving understanding of the risk factors that influence Internet use in adolescents. Risk factors that influence excessive internet use in adolescents are psychological (mental health), physical health, family/parental relationships, school achievement, and family economic income status. However, the risk factors that influence internet use in adolescents have been described in many previous studies. However, little is known about how many risk factors influence adolescent Internet use, so this review has provided an understanding of the importance of developing and implementing interventions such as preventive measures and early diagnosis of Internet addiction (IA) in adolescents. Furthermore, a counseling program is recommended to increase family awareness about IA, as it has become the responsibility of families to provide guidance and support for their children. This literature review has several limitations, the first of which is that it only focuses on one sample, namely adolescents. Secondly, risk factors that affect internet use in adolescents still need to be addressed. Future research can add risk factors that

affect internet use in adolescents, such as age, gender, peers, and internet use in rural and urban adolescents (to assess the high and low internet use in a region). In addition, this literature review is one review that may still be little reviewed by other researchers related to risk factors that affect internet use in adolescents, such as risk factors for mental health, physical health, learning achievement in school, relationships with family/parents and household income status this is a strength in the current literature review study.

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