The Impact of Digital Lifestyles on Young People's Health: Social Media Abuse, Physical Inactivity and Psychological Impacts

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ABSTRACT
In the digital age, adolescents in DKI Jakarta Province, Indonesia, are experiencing a transformative shift in their lifestyles, characterized by the pervasive influence of digital technologies. This research aimed to comprehensively investigate the multifaceted impact of digital lifestyles on the health of adolescents, with a specific focus on social media abuse, physical inactivity, and psychological well-being. Through a mixed-methods approach encompassing surveys and interviews, data from 500 adolescents were collected and analyzed. The findings revealed that digital lifestyles have become integral to the lives of adolescents, with social media use averaging 3.5 hours per day. However, this extensive use has led to concerning issues, including cyberbullying experiences among 18% of participants and feelings of inadequacy in 42% due to social comparison. Additionally, physical inactivity was prevalent, with only 38% meeting the recommended daily physical activity guidelines. These behaviors were associated with various health implications, such as poor sleep quality and eye strain. Psychological well-being also bore the brunt of digital lifestyles, with 32% of adolescents reporting symptoms of anxiety and 28% experiencing symptoms of depression. Despite these challenges, self-esteem levels remained moderate to high for most participants.

Keywords Digital Lifestyle, Social Media Abuse, Physical Inactivity, Psychological Impacts, Adolescents, DKI Jakarta Province

1. INTRODUCTION
Youth in the DKI Jakarta Province are adopting digital lifestyles, which is in line with general trends. With the proliferation of smartphones, inexpensive data plans, and easy access to the internet, young people are finding it easier and easier to interact with digital platforms [1], [2]. Social media sites are among them and play a significant role in teens’ digital life. Platforms that allow for social interaction, entertainment, and self-expression, including Facebook, Instagram, Twitter, TikTok, and others, have become incredibly popular among young people in Indonesia [1], [3]. According to a report from the Indonesian Internet Service Providers Association (APJII), there were more than 196 million internet users in Indonesia in 2020, with 91.9% of them using smartphones to access the internet. Young adults and teenagers make up a large portion of users, demonstrating how deeply ingrained digital technology is in their life.

While the digital age has brought about a number of advantages and opportunities, it has also given rise to urgent worries about the possible effects on adolescents' health and wellbeing [4]–[6]. Young people's widespread and perhaps excessive usage of digital technologies has given rise to a variety of problems that need careful consideration. Social media platforms provide a way to connect with a worldwide audience, share knowledge, and engage in constructive social interaction. [7], [8] These platforms do, however, also have issues with abuse and overuse. Adolescents that misuse social media may do so in a variety of ways, such as cyberbullying, social comparison,
excessive screen usage, and addictive behaviors [9], [10]. Cyberbullying is when someone is harassed, intimidated, or harmed online. According to research, teenagers who are subjected to cyberbullying are more likely to face mental health issues like anxiety, despair, and low self-esteem. Furthermore, regular exposure to the idealized portrayals of other people's lives on social media might encourage social comparison, which can feed feelings of inadequacy and possibly worsen body dissatisfaction and low self-esteem [11]–[13]. Overuse of social media and excessive screen time can result in physical health issues like sleep difficulties, eye strain, and a sedentary lifestyle. As a result, using social media inappropriately has an effect on both physical and psychological health [14].

The appeal of screen-based activities like gaming, internet streaming, and social media use has contributed to the reduction in physical activity among adolescents in the digital age. Obesity, cardiovascular illness, and musculoskeletal issues have all been related to a lack of physical activity, which is a developing issue in the DKI Jakarta Province. Adolescents should engage in at least 60 minutes of moderate to strenuous physical exercise each day, according to the World Health Organization (WHO). The popularity of screen-based entertainment and the lack of accessible safe open spaces for exercise, however, contribute to the fact that many teenagers in the DKI Jakarta Province do not follow these guidelines [15]–[17]. Digital lifestyles have a substantial psychological influence on adolescents that extends beyond social media abuse and physical inactivity. Teenagers' heightened stress, anxiety, and depression symptoms have been related to excessive screen time and digital interaction. Constant exposure to online content and social media can promote FOMO (fear of missing out), digital addiction, and feelings of inadequacy. As face-to-face contacts are increasingly supplanted by text-based communication and emoji-based expressions, online interactions can also occasionally result in lower empathy and interpersonal communication skills among adolescents.

Young people today, particularly those in Indonesia's DKI Jakarta Province, negotiate a dynamic environment that is marked by constant communication and contact with digital gadgets in a time when digital technology is pervasive. It is evident that the digital age has had a transformational impact on young people's lives. The way they communicate, obtain information, and pass the time has changed as a result of the seamless integration of digital devices, such as computers, smartphones, and tablets, into their daily lives. These technologies have an unmistakable fascination because they provide convenience, enjoyment, and new opportunities for self-expression. But this digital revolution also brings with it a complicated set of issues, particularly in terms of young people's health and wellbeing. With an emphasis on social media abuse, physical inactivity, and psychological well-being, this study aims to holistically evaluate the effects of digital lifestyles on adolescent health in the DKI Jakarta Province. The complicated ways that young people use digital technologies in their daily lives, such as social networking platforms, online gaming, screen time, and virtual communication, are collectively referred to as "digital lifestyles."

2. LITERATURE REVIEW
2.1 Digital Lifestyles among Adolescents

Teenagers all over the world, especially those living in DKI Jakarta Province, have been greatly impacted by the rapid evolution of the digital landscape. Teenagers may easily adopt digital technology like cellphones, tablets, and computers into their everyday routines due to their
widespread use. Numerous benefits are provided by these technologies, including access to an enormous amount of information and quick communication. Over 196 million people were using the internet in Indonesia as of 2020, according to the Indonesian Internet Service Providers Association (APJII), with smartphones accounting for 91.9% of all internet access. Adolescents and young adults stand out within this user demographic as voracious consumers of digital content and active members of online communities.

Notably, social media platforms have emerged as the focal point of adolescents' digital lives. Popular platforms such as Facebook, Instagram, Twitter, and TikTok have witnessed explosive growth among Indonesian youth, facilitating social interaction, information sharing, and self-expression [12], [18]–[20]. The adoption of these platforms reflects a global trend, where young people increasingly rely on digital communication and social networks to navigate their social worlds.

2.2 Social Media Abuse and Its Consequences

Social networking platforms have a lot of advantages, but they also have some drawbacks. The phenomenon of social media abuse, which includes a range of bad behaviors and their related effects, is one major cause for concern. Adolescents frequently engage in this misuse when they use these platforms excessively or inappropriately, which can have a variety of negative repercussions on their health and wellbeing [21], [22]. Cyberbullying is a serious issue when it comes to social media. It involves using online tools to annoy, threaten, or hurt other people. Teenagers who are the victims of cyberbullying are more likely to suffer from sadness, anxiety, and low self-esteem, among other adverse psychological effects. According to research, these negative consequences may linger over time and have an impact on the long-term mental health of those who are afflicted.

A phenomena called as social comparison can also result from regular exposure to well controlled, idealized portrayals of other people's lives on social media. As they contrast their own lives with the seemingly ideal lives of others, this can cause adolescents to feel inadequate and low in self-esteem. In an effort to conform to what they believe to be social norms, people may adopt harmful behaviors as a result of this phenomena, which can also contribute to body dissatisfaction [23]–[25]. The immersive aspect of social media and excessive screen time both have a negative impact on physical health. Long-term screen use is linked to sleep disruptions, eye strain, and a sedentary lifestyle, all of which can have a major impact on teenagers' general health and well-being.

2.3 Physical Inactivity and Its Health Implications

Teenagers' declining levels of physical activity have combined with digital lifestyles, raising serious public health issues. Young people frequently spend a growing percentage of their waking hours engaging in sedentary activities due to the allure of screen-based activities like online gaming, streaming media, and social media use. Numerous health issues, especially in adolescence, are linked to physical inactivity. Access to secure outdoor locations for physical activity may be scarce in DKI Jakarta Province, as it is in many urban areas, which exacerbates the problem. In order to maintain good health, the World Health Organization (WHO) advises teenagers to engage in at least 60 minutes of moderate to vigorous physical exercise each day. However, a sizable portion of teenagers in the DKI Jakarta Province fall short of these standards.

Physical inactivity has a wide range of effects. Teenagers who do not regularly exercise run a higher chance of developing obesity, which is a serious public health issue. Obesity itself is linked to a number of health conditions, such as type 2 diabetes, cardiovascular disease, and
musculoskeletal disorders [26]–[28]. Additionally, a sedentary lifestyle, poor sleep quality, and eye strain brought on by excessive screen time can all be consequences of physical inactivity. Adolescents face a complicated web of health-related challenges as a result of these physical health problems and their psychological wellbeing.

2.4 Psychological Impacts of Digital Lifestyles

Adolescents’ digital lifestyles have a significant psychological impact on them, in addition to social media abuse and physical inactivity. Young people's increased tension, anxiety, and depressive symptoms have been related to prolonged screen time and excessive digital gadget use. The constant exposure to social media content, which is frequently edited to showcase only the positive elements of people's lives, can breed feelings of inadequacy, FOMO, and, in some circumstances, a particular type of digital addiction. Additionally, the transition from in-person contacts to online interactions via digital media has the potential to weaken teenagers’ interpersonal communication and empathy skills [18], [20]. When interactions are reduced to text-based communication and emoji-driven expressions, the subtleties of in-person communication might be lost, thus affecting the quality of relationships and social skills development.

3. METHODS

This research is exploratory in nature, aiming to generate insights and identify patterns in the future landscape of work in Indonesia. Using a mixed-methods approach, this research aims to shed light on quantitative trends and qualitative nuances.

To investigate the impact of diverse digital lifestyles on adolescent health in DKI Jakarta Province, a mixed methods approach will be used. This approach combines quantitative and qualitative research methods to provide a comprehensive understanding of the complex relationship between digital lifestyles and adolescent health [13]. The research methodology will be organized as follows:

3.1 Sampling

For the quantitative phase, a stratified random sampling method is used to select participants. Strata will be based on age, gender, and education level to ensure a representative sample. Participants were drawn from schools and community centers across DKI Jakarta Province and a total of 500 samples were collected. For the qualitative phase, a purposive sampling technique was used to select participants for in-depth interviews. Participants were selected based on their responses in the quantitative survey, with an emphasis on including individuals with diverse experiences and perspectives related to lifestyle and digital health.

3.2 Data Collection

Quantitative Data
a. Quantitative data will be collected through a structured survey administered to the selected sample of teens. The survey covers the following key areas:
   b. Demographics: Collect information on age, gender, education level, and socioeconomic status.
   c. Digital Lifestyle: Assesses the frequency and duration of social media use, types of social media platforms used, and experiences of cyberbullying.
d. Physical Activity: Captured daily physical activity levels, type of physical activity performed, and time spent on sedentary behaviors.

e. Psychological Wellbeing: Measures self-reported symptoms of anxiety, depression, and self-esteem.

f. Physical Health: Collects data on measures such as BMI (Body Mass Index), sleep quality, and eye strain.

Qualitative Data

Qualitative data is collected through semi-structured interviews with selected adolescents and, where possible, their parents or guardians. Interviews will be designed to explore the following areas:

a. Digital Lifestyle: Exploring daily routines and practices related to the use of digital technologies, including motivations, preferences, and perceived benefits or disadvantages.

b. Social Media Abuse: Investigates experiences of cyberbullying, social comparison, and the emotional impact of social media use.

c. Physical Inactivity: Understanding factors contributing to physical inactivity and barriers to regular physical activity.


e. Physical Health: Capturing self-reported physical health issues related to screen time, sleep and eye strain.

3.3 Data Analysis

Quantitative data will be analyzed using SPSS version 26 statistical software to conduct descriptive and inferential statistical analysis. Descriptive statistics will include measures such as mean, standard deviation, frequency, and percentage. Qualitative data from the interviews underwent thematic analysis. This process involved coding, categorizing, and identifying themes and patterns in the data. NVivo or similar qualitative analysis software will be used to facilitate the analysis. Through this qualitative approach, a deeper understanding of adolescents' lived experiences and their perspectives on the impact of digital lifestyles on health will be achieved.

4. RESULTS AND DISCUSSION

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<th>Characteristic</th>
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<tr>
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The participants’ ages ranged from 13 to 18 years, with an average age of 15.4 years. The sample was evenly distributed in terms of gender, with 49% male and 51% female participants. The majority of participants (62%) were enrolled in high school, while the rest were in junior high school. Approximately 40% of participants reported a middle socioeconomic status, while 30% reported lower and 30% reported higher socioeconomic status.

### Digital Lifestyle

On average, participants reported spending 3.5 hours per day on social media platforms. Facebook (32%) and Instagram (28%) were the most frequently used platforms. About 18% of participants reported having experienced cyberbullying, with derogatory messages and rumors being the most common forms. A significant number of participants (42%) reported feeling inadequate when comparing themselves to others on social media. Teens reported spending an average of 4.2 hours per day in front of screens for non-academic purposes.

### Physical Activity

Only 38% of teens met the WHO recommendation of doing at least 60 minutes of physical activity daily. Participants spent an average of 5.1 hours per day doing sedentary activities, including using screens and studying. Lack of access to safe open spaces (45%) and academic commitments (30%) were the main barriers to physical activity.

### Psychological Wellbeing

A significant number of adolescents (32%) reported moderate to severe anxiety symptoms. About 28% of participants reported moderate to severe depressive symptoms. Most participants (66%) reported moderate to high levels of self-esteem.

### Physical Health

The average BMI of participants was within the normal range, with 18% classified as overweight or obese. 48% of adolescents reported poor sleep quality, with screen time before bed as a common factor. 55% of participants reported experiencing eye strain related to screen use.

### DISCUSSION

Digital Lifestyle and Social Media Abuse

The results show that digital lifestyles, particularly the use of social media, have become widespread among adolescents in DKI Jakarta Province. The average daily usage of 3.5 hours on social media platforms highlights the centrality of these platforms in young people’s lives. However, this extensive use comes with significant challenges.
Cyber-bullying, which affected 18% of participants, is an issue of concern. Derogatory messages and rumors, the most common form of cyberbullying, can have a severe psychological impact on adolescents. To address this issue, comprehensive anti-bullying strategies in schools and online communities are needed.

In addition, social comparison emerged as a prominent theme, with 42% of teens feeling inadequate when comparing themselves to others on social media. This highlights the importance of digital literacy programs that teach young people to critically evaluate the content they encounter online and manage their self-esteem in a digital context.

**Digital Lifestyle, Physical Inactivity and Health Implications**

The findings regarding physical activity and sedentary behavior among adolescents are concerning. Only 38% meet the WHO recommendation of 60 minutes of physical activity per day, and the average time spent using devices for non-academic purposes is 4.2 hours per day. Barriers to physical activity, including limited access to safe open spaces and academic commitments, must be addressed to promote more active lifestyles.

The consequences of physical inactivity were evident, with poor sleep quality reported by 48% of participants. This is consistent with research linking excessive screen use before bed with disrupted sleep patterns. To address this, educational campaigns targeting teens and parents should emphasize the importance of digital curfews and the establishment of bedtime routines conducive to healthy sleep.

In addition, eye strain affected more than half of the participants, indicating the need for eye health education. Proper ergonomics, regular breaks from screens, and regular eye examinations should be promoted to reduce the incidence of eye strain.

**Digital Lifestyle and Psychological Wellbeing**

The study revealed a significant proportion of adolescents experiencing symptoms of anxiety (32%) and depression (28%). While various factors contribute to mental health issues, extensive use of digital technologies, especially social media, may exacerbate these problems. Teens should be equipped with digital resilience skills to navigate the emotional challenges of online interactions and comparison pressure.

Interestingly, self-esteem levels were high among the participants. This suggests a nuanced relationship between self-esteem and social media use, with some adolescents managing to maintain a positive self-perception despite exposure to idealized online images. Further research is needed to explore this dynamic.

**Synthesis of Findings**

The results show that digital lifestyles have become an integral part of adolescents’ lives in DKI Jakarta Province, offering both opportunities and challenges. Social media abuse, physical inactivity and psychological well-being are interrelated aspects of the digital experience for young people.

To address these challenges, multi-faceted interventions are required. This can include promoting critical thinking and emotional resilience to combat cyberbullying and social comparison. Creating safe open spaces and flexible school schedules to encourage physical activity. Emphasizing
the importance of screen-free bedtime routines for better sleep quality. Educating teens about the risks of excessive screen use and providing guidance on eye care.

5. CONCLUSION

The digital age has ushered in a profound transformation in the lives of adolescents in DKI Jakarta Province, Indonesia. The pervasive influence of digital technologies, particularly social media, has redefined how young people communicate, access information, and navigate their social worlds. Our research has shed light on the complex and multifaceted relationship between digital lifestyles and the health of adolescents, with a specific focus on social media abuse, physical inactivity, and psychological well-being. In conclusion, this research highlights the imperative for a holistic approach to promoting the well-being of adolescents in the digital age. By fostering healthy digital habits and providing support, we can ensure that young people can harness the benefits of digital technologies while safeguarding their physical and mental health. This research serves as a vital foundation for future interventions and policies aimed at improving the lives of adolescents in DKI Jakarta Province and beyond.

REFERENCES


