

Public Governance Strategies for Addressing the Social Impacts of Excessive Gadget Use among Teenagers

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ABSTRACT:

This study aims to examine the impact of gadget addiction on the psychological, social, and mental health of adolescents. Gadgets, as modern electronic media, have become an integral part of adolescents' daily lives. However, excessive use of gadgets can cause serious negative impacts, particularly in psychological, social, and mental health aspects. The method used in this study is a literature review with a qualitative descriptive approach, collecting and analyzing various sources of scientific journals, books, and relevant articles from national and international sources. The results of the study indicate that gadget addiction in adolescents causes emotional instability, social isolation, decreased concentration in learning, sleep disorders, the growth of egocentric attitudes, the emergence of cyberbullying phenomena, and various symptoms of mental illness such as depression and anxiety. Triggering factors include individual psychological conditions, an unsupportive family environment, peer pressure, and addictive technology design. The study's conclusions emphasize the importance of a multidisciplinary approach involving parents, educators, the government, and technology developers in guiding adolescents to use gadgets wisely to maintain a balance between the digital world and real life.

Keywords:Gadgets, Digital Addiction, Social Psychology, Mentality, Teenagers, Mental Health

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INTRODUCTION

The development of digital technology in recent decades has brought about significant changes in the lives of modern society, especially among teenagers. Gadgets such as smartphones, tablets, and laptops are no longer merely communication tools but have become an integral part of everyday life. Increasingly easy and affordable internet access, coupled with the proliferation of social media platforms, online games, and engaging digital content, has led teenagers to spend hours in front of screens. Data shows that the average teenager spends more than 6-8 hours per day using gadgets, whether for socializing, studying, or entertainment (Riyanto, 2023). In fact, a report from the Pew Research Center (2022) revealed that 95% of teenagers in the United States own or have access to a smartphone.

On the one hand, gadgets provide various conveniences in life, from easy communication and broad access to information to entertainment and creativity. However, on the other hand, uncontrolled gadget use, especially by adolescents who are in the phase of searching for identity and emotional development, raises serious concerns. Adolescents are the group most vulnerable to the negative impacts of gadget addiction, considering that their brains—particularly the prefrontal cortex area responsible for decision-making and self-control—are still developing (Simanjuntak & Wulandari, 2022). Various national and international studies have revealed that excessive gadget use can cause significant emotional changes, social isolation, decreased academic achievement, and even mental health disorders such as depression and anxiety. Research published in *The Lancet Child and Adolescent Health* (2019) found that high levels of smartphone use are associated with increased rates of depression and anxiety. Meanwhile, in Indonesia, various studies have shown similar findings relevant to the conditions of adolescents in the local cultural context (Jannah et al., 2024; Selian et al., 2025).

Not only will it affect children, psychological problems due to gadgets can also occur in adults, especially gadgets are used from waking up until going to sleep again (Diskominfo Badung, 2018). Like two sides of a coin, gadget technology provides both benefits and disadvantages. This depends on how individuals respond and choose it, where parents themselves are responsible for guiding children to get the positive benefits from using gadgets. Based on this background, this article aims to review and synthesize various research findings regarding the impact of gadget

addiction on social psychology and mentality for adolescents, so that it can provide a comprehensive understanding for parents, educators, and policy makers in formulating effective intervention strategies.

METHOD

This research employed a literature review method with a qualitative descriptive approach. A literature review is a research method that critically examines or reviews knowledge, ideas, or findings contained within academic-oriented literature and formulates their theoretical and methodological contributions to a specific topic (Jannah et al., 2024). This method was chosen because it allows researchers to systematically collect and synthesize findings from various sources.

Data collection was conducted through various library sources, including national and international scientific journals, books, and articles relevant to the research topic. Source inclusion criteria included: (1) publications discussing the impact of gadget use or addiction on adolescents; (2) focus on psychological, social, and mental health aspects; and (3) sources that are academically accountable. Sources used included national journals such as Mutiara: Journal of Research and Scientific Work, Journal of Community Service and Educational Research, Ra'ah Journal of Pastoral Counseling, and Jurnal Solo Teknologi; and international sources such as the Indian Journal of Community Medicine (NLM/PubMed) and Pew Research Center reports.

The subjects of this article are adolescents who actively use gadgets, particularly those aged 12-22, a critical period in their emotional and social development. Data analysis was conducted by identifying key findings from each source and then synthesizing them to understand the overall impact of gadgets, from both a national and international perspective.

RESULTS

The Social Psychological Impact of Gadget Addiction

1. Reduced Social Interaction in the Real World

Excessive gadget use causes teenagers to become increasingly focused on the virtual world and neglect real-world interactions. While gadgets can facilitate communication, excessive use can actually reduce real-world interactions. This can indirectly lead to antisocial behavior if it becomes a habit from childhood (Diskominfo Badung, 2018). Research by Selian et al. (2025) found that teenagers addicted to gadgets experience a decline in their ability to interact in real life; they reported feeling more comfortable communicating via chat than face-to-face. In fact, data from Kurniawan et al. (2025) shows that teenagers who use gadgets heavily have a 30% smaller circle of real-life friends than the previous generation.

2. Decreased Family Harmony

When family members are preoccupied with their gadgets, for example, when everyone is eating dinner together and everyone is busy with their own gadgets, the atmosphere of togetherness diminishes and family relationships become strained. This condition causes disharmony in the family because they grow distant from each other. Case study research found that teenagers who are addicted to gadgets tend to become 'strangers in their own family,' preferring to eat in their rooms while watching YouTube rather than gathering with their family at the dinner table (Selian et al., 2025). Maria (2022) also emphasized that gadgets can reduce the value of family togetherness, actually bringing those who are far away closer than those who are close.

3. The Growth of Egocentric Attitudes and the Decline of Empathy

Children who frequently play with gadgets from an early age tend to develop an egocentric attitude, which is an attitude of being insensitive to the needs and feelings of others. Excessive gadget users are accustomed to indirectly not caring about others, and their sense of empathy for their surroundings is reduced (Diskominfo Badung, 2018). Wicaksono et al. (2025) added that intensive gadget use also affects character formation, where adolescents become more individualistic and egocentric, and lack social sensitivity. This condition reflects a shift in human values such as empathy, tolerance, and social concern.

4. Laziness in Daily Activities

Gadget addiction causes teenagers to be lazy about their daily activities. They are too busy playing with gadgets and are lazy to move, which leads to many tasks being postponed. Children also become lazy about reading and writing, because they are more interested in looking at interesting pictures and find reading or writing boring. This condition also affects writing skills because motor coordination becomes poor (Diskominfo Badung, 2018). Soni & Vinod (2025) from an international perspective confirmed that teenagers who spend more than three hours a day on electronic devices are more likely to experience symptoms of depression and anxiety, which ultimately also affect productivity.

5. Cyberbullying and Digital Security Threats

Teenagers' access to social networks through gadgets opens them to the risk of cyberbullying. Unlike traditional bullying, cyberbullying can occur 24 hours a day and is often anonymous, making it more difficult for victims to break free. Hinduja & Patchin (2014) found that victims of cyberbullying are more likely to experience depression, anxiety, and even suicidal ideation. Meanwhile, Jannah et al. (2024) added other risks such as loss of privacy, stranger danger (the danger from strangers who fake online identities), and cyberstalking, which threaten adolescents' safety. This situation is further exacerbated by adolescents' immaturity in understanding the impact of information presented online.

6. Triggering a Culture of Consumerism

The desire to constantly own the latest gadgets and keep up with trends drives a wasteful lifestyle among teenagers. This condition is considered a psychological disorder due to the constant desire to buy the latest gadgets, which leads teenagers to live more extravagantly, spending on operational expenses such as cellphone service, phone credit, and gadget accessories. Furthermore, exposure to social media content depicting others' ideal lives encourages unhealthy social comparison, leading teenagers to become selfish and show-off (Diskominfo Badung, 2018; Wicaksono et al., 2025).

The Impact of Gadget Addiction on Teenage Mentality

1. Emotional Instability

Excessive gadget use has a significant impact on adolescents' emotional stability. Teenagers become irritable, anxious, and withdrawn when removed from their devices. A case study by Selian et al. (2025) reported drastic mood swings between gaming and normal activities. Withdrawal symptoms were also identified; when parents forbade their children from accessing gadgets during certain times, such as during meals or sermons at a place of worship, the reaction was a red face and slamming the bedroom door. Maria (2022) found in her research that approximately 40% of parents reported that their children exhibited excessive emotional behavior when denied access to gadgets, even to the point of threatening to refuse school or study.

2. Anxiety and Depression

Gadget addiction is strongly correlated with increased symptoms of anxiety and depression in adolescents. From an international perspective, Twenge et al. (2018) revealed that adolescents who spend more than three hours a day on electronic devices are more likely to experience symptoms of depression and anxiety. A longitudinal study published in the Journal of Education Circle (Pagia & Wahyuni, 2024) revealed that adolescents who are heavy social media users show a 40% increase in depressive symptoms compared to those with limited gadget use. From a national perspective, Jannah et al. (2024) confirmed that gadget addiction can impact mental health, with symptoms of anxiety and depression being the most common impacts found in adolescents aged 12-22.

3. Sleep Disorders

Playing with gadgets, especially before bed, can reduce sleep time and trigger various sleep disorders. Generally, adults need a minimum of 6-8 hours of sleep and children 9-11 hours per day; less than that can cause various diseases (Diskominfo Badung, 2018). The blue light from gadget screens inhibits the production of melatonin, which regulates a person's sleep-wake cycle. A study published in JAMA Pediatrics (2017) found that adolescents

who use smartphones within an hour of bedtime are more likely to experience poor sleep quality and shorter sleep duration, which in turn can lead to mood disorders and cognitive decline (Soni & Vinod, 2025). National research by Selian et al. (2025) also confirmed that adolescents addicted to gadgets often stay up until 2:00-4:00 a.m. Western Indonesian Time, resulting in late school or even skipping school.

4. Decreased Concentration and Academic Achievement

Excessive use of gadgets leads to decreased concentration, both for work and study. A person's concentration becomes shorter and they become less aware of their surroundings; in children, they prefer to spend time playing with gadgets than studying (Diskominfo Badung, 2018). Digital multitasking patterns formed from the habit of switching between applications undermine long-term focus and learning efficiency. Constant notifications create distractions, causing individuals to experience attention residue, a condition where the brain has difficulty switching fully from one task to another (Wicaksono et al., 2025). Consequently, adolescents' academic grades decline drastically, and some are even threatened with repeated grades due to frequent truancy (Selian et al., 2025).

5. Triggers Mental Illness

Irregular gadget use can lead to symptoms of mental illness, especially in adolescents who are still growing. These include depression, increased anxiety, attention deficit disorder, bipolar disorder, and other mental disorders (Diskominfo Badung, 2018). Stress can also be triggered by gaming on gadgets. From an international perspective, the American Psychological Association (APA) confirms that the pressure to maintain a positive online image can cause stress and anxiety, especially for adolescents who are still developing their self-identity (Soni & Vinod, 2025).

6. Identity Dissociation

One of the most worrying impacts is the emergence of identity dissociation, where teenagers feel more comfortable and valued in virtual worlds than in face-to-face interactions. Some teenagers claim to be "different people" in the gaming world—more confident and respected—while others create "idealized versions" of

themselves on social media. This condition is known in psychology literature as the online disinhibition effect (Selian et al., 2025). Excessive gadget use even causes a delay in emotional maturity in teenagers by up to 2-3 years compared to their peers who have more balanced usage patterns (Twenge & Campbell, 2018).

C. Factors Causing Gadget Addiction in Teenagers

Gadget addiction in adolescents is the result of a complex interaction between various factors. First, psychological and emotional factors, where adolescents use gadgets as a coping mechanism to deal with pressures such as family conflict or academic demands—in line with the uses and gratifications theory (Kamaruddin et al., 2023). Second, family environmental factors, including inconsistent parenting, lack of parental supervision, and domestic conflict. Third, social and social factors, including peer pressure and the FOMO (Fear of Missing Out) phenomenon, which makes adolescents feel compelled to remain digitally connected to avoid losing social status. Fourth, addictive technology design factors, where features such as chain notifications, continuous content recommendation algorithms, and in-game reward mechanisms are deliberately designed to trigger dopamine release and create a cycle of addiction (Selian et al., 2025; Soni & Vinod, 2025).

DISCUSSION

Based on literature reviews from various national and international sources, gadget addiction in adolescents has been shown to have broad and interconnected impacts on social psychology and mental health. Findings from Indonesian studies align with international studies, indicating that this problem is universal, albeit with nuances in different cultural contexts. The most prominent social psychological impact is a reduced ability for meaningful social interactions in the real world. The link between gadget use and this decline in social interaction is supported by the displacement hypothesis (Kusuma Rini & Huriyah, 2020), which states that excessive online time displaces meaningful social interactions in the real world. A social paradox thus arises: adolescents with thousands of virtual friends actually feel increasingly lonely and isolated in real life—a condition Selian et al. (2025) termed 'paradoxical social isolation.'

Mentally, gadget addiction not only impacts short-term behavior but also has the potential to hinder the development of adolescents' character and personality in the long term. Early adolescence (12-18 years) is psychologically the peak of emotionality, with sensitive, reactive, and negative emotions (Jannah et al., 2024). This condition is further exacerbated by gadget addiction, which erodes the ability to regulate emotions. Research by Twenge & Campbell (2018) confirms that the association between excessive screen use and lower psychological well-being is a consistent finding across various populations.

The relationship between smartphone use and adolescent mental health is bidirectional. While excessive gadget use can lead to mental health issues, adolescents already struggling with mental health issues are also more likely to use smartphones excessively as a coping mechanism (Soni & Vinod, 2025). This pattern creates a vicious cycle that is difficult to break without appropriate intervention.

These findings also underscore the crucial role of parents and families. Maria's (2022) research confirms that children's technology use is heavily influenced by their parents. Lack of parental supervision in controlling gadget use is a significant factor exacerbating gadget addiction in adolescents. Conversely, an authoritative parenting approach, which involves adolescents in setting rules for gadget use in a participatory manner, has proven more effective than an authoritarian approach (Selian et al., 2025). Gadgets also have positive aspects; when used wisely and under parental supervision, they can build social relationships, develop a positive identity, strengthen self-esteem, and even serve as a means of coping with depression through online community support (Jannah et al., 2024).

CONCLUSION

Gadget addiction in adolescents has serious and complex impacts on their social psychology and mental health. Psychologically, gadget addiction leads to reduced real social interactions, weakened family harmony, the growth of egocentric attitudes and reduced empathy, laziness in daily activities, the risk of cyberbullying and digital security threats, and the development of an unhealthy consumer culture. Mentally, the impacts include emotional instability, increased anxiety and depression,

chronic sleep disorders, decreased concentration and academic performance, triggers of mental illness, and identity dissociation, where adolescents feel more valued in the virtual world than in real life. These findings are consistent across national and international studies, indicating that the problem of gadget addiction is universal.

It's important to understand that the relationship between gadget use and mental health is bidirectional. Therefore, recovery from gadget addiction doesn't mean completely eliminating technology. Instead, it's about building adolescents' abilities to use technology consciously, wisely, and meaningfully, and ensuring they maintain a healthy balance between the digital world and more concrete daily life activities.

SUGGESTION

For Parents: It is expected to always monitor how children use gadgets, limit their use, and be able to handle changes in attitude that occur in adolescents. The authoritative parenting approach—setting rules together in a participatory manner, rather than confiscating gadgets, which can trigger aggression—has proven to be more effective. Creating gadget-free zones at the dinner table and in the bedroom, as well as creating a gadget use contract agreed upon with the child, are concrete steps that can be implemented. For Educators and Schools: Integrating emotional digital literacy programs into the curriculum is essential, including teaching students to recognize emotional triggers that lead to excessive gadget use, how to differentiate between digital connections and real relationships, and how to develop digital self-awareness. Digital detox programs, or gadget-free days, are also worth considering as part of school policy. For Teens: It's recommended to develop meaningful alternative activities—sports, arts, or community—that can fulfill psychological needs for challenge, recognition, and social connection without relying entirely on the digital world. Joining a peer support group that reminds each other to limit gadget use has also been shown to be effective in breaking the cycle of addiction.

For the Government and Policymakers: Stricter regulations are needed on digital content that has the potential to be addictive for teenagers, as well as encouragement for technology developers to implement ethical design principles—particularly limiting features deliberately designed to trigger dependency in underage users. Public awareness campaigns about the importance of balancing digital and real life are also needed.

5For Future Researchers: Further research is needed to explore the role of the broader social environment in shaping adolescents' gadget use patterns, as well as to evaluate the effectiveness of various long-term intervention strategies. Longitudinal studies comparing the impact of gadget addiction across cultures would also be beneficial.

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