Social Media and Youth Mental Health in Singapore: Key Findings and Recommendations from an Expert Panel

Outline

Foreword

The question of how social media shapes the lives of young people is one of the most pressing issues of our time. As digital platforms become ever more deeply woven into the fabric of daily life, understanding their effects on the mental health and well-being of children and adolescents has never been more urgent.

This report reflects the collective efforts of an expert panel drawn from the fields of psychology, public health, and policy. Over the course of our deliberations, the expert panel examined a wide body of evidence. We are grateful to all who contributed their time, expertise, and insights to this process.

We present this report not as the final word on a complex and evolving subject, but as a considered contribution to an ongoing national conversation. We hope it will serve as a useful reference for policymakers, educators, parents, platform operators, and our young people, as we work together to create a safer and healthier digital environment – and that the recommendations set out here will represent a meaningful step towards that goal.

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1. Introduction

1.1. Screen Use

1. The proliferation of internet-connected devices has fundamentally changed how people of all ages spend their time. The term “screen use” broadly refers to the use of a digital screen, whether through smartphones, tablets, computers or televisions. While screens serve as gateways to education, creativity, and social connection, there are growing concerns over the potential harms associated with excessive screen use, particularly during the formative years of childhood and adolescence.

2. “Screen time”, or the time spent in front of screens, can displace activities such as sleep, physical activity, and meaningful face-to-face interaction, which are important for healthy growth and the cognitive, emotional and social development of children and adolescents.

3. Besides displacing activities that are important for healthy development, high levels of screentime exposure during early childhood years may affect the child’s later neurodevelopment and exacerbate the risk of future mental health problems. Local research suggests that higher levels of screen time during early childhood years (ages 1 – 2) are associated with greater anxiety symptoms at age 13, raising concerns that the impact of early screen exposure may have severe and long-lasting consequences.[1]

4. However, screen use is but one of many factors that shape a young person’s development. Parenting styles and broader life experiences – including exposure to adversity or supportive relationships – may exert a greater influence on outcomes in childhood and adolescence.[2,3] The role of screen use should therefore be examined within this wider context, rather than in isolation.

1.2. Social Media

5. There is no single, universally accepted definition of social media, and the term has been defined in varied ways across literature[4]. A commonly used definition is as follows:

   Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.[5]

6. These platforms have become central to how people communicate, consume information, and express themselves. Unlike earlier forms of digital media, social media is characterised by its interactive and participatory nature – users are not merely passive consumers but active contributors to a constantly renewing stream of content. Social media platforms also lower the barriers to connection, enabling almost anyone – whether known or unknown to the user – to reach out, interact, or engage with them directly.

1.3. Social Media Use Among Young People

7. Young people are among the most active users of social media. The U.S. Surgeon General's Advisory reported that up to 95% of young people aged 13 to 17 in the United States have used a social media platform, and that more than a third reported using social media "almost constantly". The advisory also noted that nearly 40% of children aged 8 to 12 had used social media.[6] For many young people, social media is a primary means of maintaining friendships, exploring identity, and engaging with popular culture. It also serves as a space for self-expression and community-building, offering connections and belonging that can be especially meaningful during adolescence. However, certain *features* that make social media appealing to young people may also have adverse impact on their development, safety, well-being, and mental health.

1.4. Expert Panel on the Mental Health Impact of Social Media Use

8. As Singapore considers further steps to strengthen protections for young people online, an Expert Panel was convened to study the existing body of evidence on the impact of social media use on young people's mental health. In parallel, the Saw Swee Hock School of Public Health was commissioned to conduct a review of the international evidence base. The review findings have been deliberated by the Expert Panel and underpin the recommendations set out in this report.

1.5. Purpose and Scope of Report

9. This report highlights growing concerns about the effects of social media on young people's mental health, reviewing existing evidence on its potential harms and identifying key areas of concern for their mental health and well-being. It recognises that adolescents are particularly vulnerable during their developmental years, while acknowledging that their experiences and risks vary depending on their stage of growth. Drawing on available evidence, the report

aims to inform policy and practice in Singapore, offering recommendations to address potential harms of social media while recognising the benefits that it can provide.

2. Impact of Social Media Use on Young People's Mental Health

10. The question of whether social media is harming young people has sparked considerable debate in both academic and public spheres. Some researchers argue that the widespread use of social media is causing significant harm to young people, while others point to a lack of definitive evidence, citing small observed effect sizes or limitations in study methods. Researchers have also examined how social media use may benefit certain individuals, such as young people who may otherwise lack offline support, including those in marginalised groups – providing them with access to communities, peer connection, and affirming spaces that might otherwise be unavailable to them.[7] More broadly, social media can offer the wider population of young people opportunities for positive influence, personal expression and social support, contributing to positive mental health outcomes.[8]

11. This debate has moved well beyond academic journals, with governments around the world taking concrete steps to address the potential harms of social media on young people. Australia, the United Kingdom, France, Indonesia and Malaysia have either implemented or announced minimum age limits for access to social media.

12. The relationship between social media and youth mental health is neither simple nor uniform. It is complex because the impact on young people is shaped not just by how much time they spend on platforms or the content they encounter, but also how they *use* social media, including the nature of their online interactions and the extent to which social media displaces activities essential to their health and well-being. It is also multi-faceted, as outcomes vary considerably depending on young people's strengths and vulnerabilities, as well as broader cultural, historical, and socio-economic factors[9] – with age and stage of development playing particularly important roles. While the evidence does not support clear causation, a substantial and growing body of research points to associations between *problematic* social media use and adverse mental health outcomes, including anxiety and depression.[10]

2.1. Adolescence as a Period of Heightened Vulnerability

13. Brain development is a critical factor when assessing the risk of harm from social media.[6] Adolescence is a period of profound biological, psychological, and social transition, during which adolescents are especially attuned to their social environments.[11] This heightened sensitivity – particularly to peer feedback and experiences of exclusion or rejection – is further amplified in the social media environment, where such dynamics play out at far greater scale, often in public, and with correspondingly greater intensity.

2.1.1. Cognitive Development of Adolescents

14. Young users of social media may lack the cognitive and emotional maturity to critically evaluate the content they encounter, manage the social pressures of online interactions, or recognise manipulative design features built into social media platforms. Exposure to harmful content – including sexual content, violent content, suicide and self-harm content, and cyberbullying content – poses a serious risk to younger users who may not be sufficiently mature to process what they see, or understand the context and implications of the content.

15. The heightened importance of peer relationships during adolescence means that online social dynamics can have an outsized impact on a young person's sense of self-worth and belonging. Negative experiences on social media, such as cyberbullying, social exclusion, or exposure to idealised and unrealistic portrayals of others' lives, may carry disproportionately greater psychological weight for adolescents than for adults.

2.1.2. A Critical Window for Mental Health

16. Mental health conditions often start in adolescence. Among those who have mental health conditions, one in three individuals experiences the onset before the age of 14, rising to one in two by age 18 and two in three by age 25.[12] With strong social support and resilience, individuals can overcome life challenges and recover. Therefore, adolescence and early adulthood represent a critical window during which the foundations of long-term mental health are being laid, and during which exposure to harmful influences – including those encountered on social media – may have lasting consequences.

2.1.3. Age of First Smartphone Ownership and Social Development

17. There has been a growing body of research indicating that an earlier age of smartphone ownership may be linked to poorer mental health outcomes. According to a study of American adolescents, smartphone ownership at age 12 was associated with higher risk for depression, obesity, and insufficient sleep, compared to not owning a smartphone. This suggests that delaying smartphone ownership may be associated with better mental health outcomes. Smartphone use contributes to fragmented attention and extended use may lead to mental and physical health challenges and less sleep, especially during a period of development whereby young people may not have sufficiently mature self-regulatory skills to make optimal choices regarding their smartphone use.[13]

18. Protecting young people during this formative period is an investment in their mental health across the course of their lives. Since adolescence represents such a vulnerable period of development, social media exposure during this time warrants additional scrutiny and a considered policy response.

2.2. Excessive and Problematic Social Media Use

19. Not all social media use carries the same level of risk. It is therefore useful to distinguish between two related but distinct concepts. ***Excessive social media use*** refers to the amount of time a person spends on social media platforms[14], typically measured in hours per day. ***Problematic social media use*** is characterised by persistent, compulsive or addiction-like patterns of use, including loss of control, preoccupation with social media, unsuccessful attempts to reduce use, and continued use despite negative consequences.[15,16] While excessive and problematic use often co-occur, it is possible to spend a significant amount of time on social media without exhibiting addiction-like patterns, and vice versa.

20. A study drawing data from 29 countries found that problematic social media use was more consistently associated with poor well-being across all countries studied than time spent on social media alone.[17] This cross-national evidence reinforces the view that it is not only how long young people spend on social media that matters, but the nature of their relationship with it. Addressing problematic patterns of use may therefore require different policy and intervention responses.

21. Both forms of use are common among young people, and their prevalence appears to be growing. In a survey conducted across 44 countries and regions

of Europe, central Asia and Canada, problematic social media use is most commonly observed among 13-year-olds, and its prevalence among young people rose from 7% to 11% between 2018 and 2022.[16] The situation in Singapore is similarly concerning. One in three young people aged 15 to 17 (36%) reported spending more than three hours on social media daily[18], while one in six (18%) young people aged 10 to 24 showed signs of problematic social media use[19]. These figures suggest that a significant proportion of young Singaporeans are engaging with social media in ways that may place their mental health at risk.

2.3. Impact of Excessive and Problematic Social Media Use on Young People's Mental Health

22. The evidence linking excessive and problematic social media use to poorer mental health outcomes is substantial, and the effects appear to be particularly pronounced among younger users. In Singapore, approximately two in five (39%) young people aged 15 to 17 who used social media excessively (more than three hours daily) also reported severe symptoms of depression[18], and young people exhibiting more addiction-like symptoms of social media use also reported worse overall mental well-being[19]. These findings are consistent with international evidence. They also suggest that the risks of early and excessive social media use can persist over time. Higher social media use in early adolescence has been linked to an increased risk of depressive symptoms in later years, indicating that habits formed early may have lasting effects.[20]

2.3.1. Anxiety and Depression

23. Among the most consistently documented mental health outcomes associated with problematic social media use are anxiety and depression. Research across multiple countries has found that young people who exhibit addiction-like patterns of use are more likely to report symptoms of anxiety and depression.[21]

24. There are two prominent explanations for why problematic social media use is linked to anxiety and depression. The first is that people who already experience depression or anxiety may turn to social media for comfort or connection – which is recognised as a characteristic sign of these conditions. Yet this coping behaviour can paradoxically worsen the very conditions it seeks to soothe, as problematic use may deepen over time and displace healthier forms of support and regulation, creating a vicious cycle. The second explanation concerns sleep.

Heavy social media use, especially on smartphones, tends to push back bedtimes and disrupt sleep. Since good sleep is essential for managing emotions and maintaining mental well-being, poor sleep quality can contribute to or worsen depression and anxiety symptoms. Taken together, these explanations suggest that the relationship between problematic social media use and poor mental health is not one-directional – one can worsen the other over time.[21]

2.3.2. Life Satisfaction and Well-Being

25. Beyond clinical symptoms, problematic social media use has been consistently associated with lower life satisfaction and lower levels of mental well-being across multiple countries.[17] Negative effects of social media on life satisfaction are strongest during early adolescence, suggesting that there are distinct windows of sensitivity to social media in adolescence when higher social media use is followed by a drop in life satisfaction the following year. These critical periods occur around ages 11 to 13 for girls and ages 14 to 15 for boys. The relationship also runs the other way – young people who feel less satisfied with their lives tend to use social media more heavily over time.[22]

2.3.3. Social Comparison, Body Image and Eating Disorders

26. Research has found that heavy social media use is associated with a greater tendency to compare oneself with others, and this may in turn heighten body image concerns and problematic eating behaviours. Social media has also become a key setting for social comparison, where individuals measure themselves against others based on lifestyle- or appearance-related posts or photographs. A key part of the problem is that social media disproportionately showcases idealised and unrealistic portrayals of lifestyles and appearances by peers, celebrities, and influencers, which can encourage social comparisons and contribute to body image concerns among some users. When people regard these curated posts as benchmarks for how they should live or present themselves, the psychological consequences can be significant.[23] Research has also found that heavier social media use tends to fuel greater feelings of envy towards others, and that this envy in turn contributes to higher rates of depression – suggesting that the harm of social comparison extends beyond body image alone.[24]

27. Body image issues among young people are especially concerning. In Singapore, about one in five (20%) young people aged between 15 to 35 years old reported having moderate to severe body shape concerns, and these young people were four to five times more likely to experience severe symptoms of

depression and anxiety – underscoring the particular vulnerability of young people to appearance-related pressures. A study tracking over 1,500 adolescents aged 11 to 15 in the United States found that when adolescents became more preoccupied with their appearance on social media, their depressive symptoms increased in the months that followed. These results suggest that the highly visual, appearance-focused social media content, coupled with heightened risk for body image concerns during adolescence, may exacerbate adolescents' vulnerability to depressive symptoms and eating disorders.[25]

2.4. Social Media Features of Concern

28. Beyond the general risks of social media use, certain platform features have been identified as particularly problematic from a youth mental health perspective. The Expert Panel identified specific social media features that warrant particular attention.

- **Features that may expose users to safety risks**

  Direct messaging functions, which allow private one-to-one or group communication, can facilitate contact between young users and unknown adults, creating conditions that may be exploited for cyberbullying, grooming, harassment, or the solicitation of sexual content. The ability to create anonymous or pseudonymous accounts further compounds this risk, as it reduces accountability and emboldens harmful behaviours while making it more difficult for victims to identify or report perpetrators. The consequences of cyberbullying for young users can be severe: in Singapore, about one in five (21%) young people aged between 15 to 35 years reported having been cyberbullied[26], and those who had experienced cyberbullying were approximately twice as likely to report symptoms of depression or anxiety compared to those who had not.[18]

- **Features that may prolong the time users spend on platforms**

  Infinite scroll and autoplay functions may have been deliberately designed to maximise user engagement, which may contribute to problematic or addictive patterns of social media use. Unlike traditional media formats with defined endpoints – such as a television episode or a newspaper – these features create an effectively boundless stream of content that exploits psychological tendencies toward novelty-seeking and completion. By removing natural stopping cues, they encourage prolonged engagement that may come at the expense of sleep, learning, physical activity, social relationships, and other

responsibilities. Research suggests that individuals experience more guilt over their smartphone use when they have mindlessly scrolled for longer periods, and that mindless scrolling is itself associated with negative impacts on well-being.[27] For young users who may have less capacity for self-regulation, these features can contribute to excessive use that displaces activities essential for healthy development. The cumulative effect of such disruptions over time can negatively affect physical, psychological, and social functioning, independent of the nature of the content consumed.

- **Features that may worsen mental health outcomes**

  Algorithmically-curated feeds, which prioritise content based on engagement signals, can inadvertently amplify exposure to negative or psychologically harmful content.[28] Because distressing or emotionally provocative content tends to generate higher engagement, recommendation algorithms may systematically draw users deeper into harmful content based on algorithmic designs – even when a user's initial interest was benign. The scale of this exposure is significant: a national survey of Australians found that around half of the respondents had been exposed to self-harm or suicide-related content on social media, with exposure often accidental and, in nearly half of cases, occurring before the age of 16. Rates of exposure were higher among young people than adults, and for most respondents, such exposure worsened their mood. Critically, a subset of respondents reported that exposure led to further self-harm, with some engaging in methods similar to those depicted online.[29] This is particularly concerning given the evidence that adolescents may lack maturity to cogently process such content and recognise its effect on themselves. The algorithm, in effect, can function as an accelerant, intensifying exposure to content likely to cause harm.

  Quantified social feedback mechanisms, such as visible "like" counts, follower metrics, and public comment functions, can intensify social comparison and validation-seeking behaviours, with potentially damaging effects on self-esteem and emotional well-being. In a series of studies involving adolescents, those randomly assigned to receive fewer likes than others during a standardised social media interaction felt more strongly rejected, reported more negative affect, and had more negative thoughts about themselves. Crucially, these negative responses were not merely transient – they were associated with greater depressive symptoms reported day-to-day and at the end of the school year. The research also found that adolescents who already experienced peer victimisation at school were the most vulnerable to these effects, suggesting that quantified feedback mechanisms may disproportionately impact those who are already at risk. Taken together, these findings raise the possibility that features which make social status visible and comparable – even in the absence of explicitly negative comments – may accelerate the onset of internalising symptoms among vulnerable young

people.[30] For adolescents, whose identity and self-worth are still developing, reducing social standing to visible metrics such as “likes” and follower counts can create intense social pressure. The public and permanent nature of this feedback – unlike the transient social judgements of offline life – means that negative experiences are recorded, searchable, and potentially revisited repeatedly.

29. Beyond addressing these specific features, the Expert Panel notes that robust age assurance measures are equally essential. Age-gating harmful features alone is insufficient if young users continue to be able to access platforms and experiences that are not appropriate for their age. Effective age assurance forms a necessary foundation upon which other protective measures could be built.

3. Current Regulatory Measures and Public Education Efforts to Promote Safe and Healthy Use of Social Media

30. Governments and regulatory bodies around the world have begun to respond to growing evidence of harm with a range of legislative and policy measures. These include, among others, the introduction of minimum age restrictions for social media and measures to address specific concerning features on platforms.

31. In Singapore, the Code of Practice for Online Safety – Social Media Services requires Designated Social Media Services to put in place systems and processes to minimise exposure to harmful online content for Singapore users, particularly children. The Infocomm Media Development Authority also publishes an annual Online Safety Assessment Report that assesses the presence, comprehensiveness and effectiveness of the online safety measures implemented by each social media service.

32. Beyond regulation, the Government has put in place multi-agency efforts to foster healthy digital habits among younger users. The Ministry of Health’s Guidance on Screen Use in Children discourages the use of social media for those under 12. In schools, the Ministry of Education’s Character and Citizenship Education curriculum, which includes Mental Health and Cyber Wellness lessons, nurtures students to be safe, respectful and responsible users of cyber space and to be a positive influence online. Students are taught skills to recognise signs of distress and online risks, identify and discern negative influences, and avoid excessive

use of social media. To foster healthier habits on screen use and to promote student engagement, schools have also implemented tightened guidelines for the use of smartphones and smartwatches. Beyond the classroom, the Ministry of Digital Development and Information launched “Screen Smart from the Start”, a nationwide movement to support families in raising children in the digital age. The movement brings together practical guidance, meaningful offline experiences, and strong community support to help parents and children build healthy digital habits from an early age.

33. At the industry level, some social media platforms have started introducing features intended to support safer use among young users, such as differentiated accounts with stronger parental controls. Some have also stepped up to work with partners, such as community partners, to co-create resources that help parents guide their children in fostering healthy digital habits from young.

34. These efforts reflect a growing recognition that protecting young users online requires action across multiple fronts – from regulation and industry to parents, schools and the wider community. Yet, more can be done to better safeguard users, especially young people, in online spaces.

4. Recommendations to Address Potential Harms of Social Media Use Among Young People

35. The Expert Panel has considered the evidence on the potential negative impact of problematic social media use on young people’s mental health, weighed against the possible benefits that social media may bring. On balance, the Panel is of the view that the cost of inaction is too high, and therefore makes the following recommendations:

- **Adopt a precautionary and proactive approach to regulating social media use among young users.**

  While definitive causal links between problematic social media use and adverse mental health outcomes have not yet been established, the evidence of association is clear and consistent across a wide range of studies, and conclusive causal evidence may take years to emerge. There is sufficient evidence to act – and many jurisdictions have already done so in some form, recognising that waiting for certainty is not a responsible option.

- **Make social media safer for young people by addressing potentially harmful platform features, rather than restricting access completely.** Some jurisdictions, including Australia, France, the United Kingdom, Malaysia and Indonesia, have responded by raising the minimum age for young people to access social media. The Panel acknowledges the intent behind such measures, but is concerned that blanket age-based restrictions do not distinguish between harmful and beneficial uses of social media, and risk being counterproductive should young people easily circumvent age restrictions. As far as possible, the Panel prefers a more durable and proportionate response to make social media safer by design so that young people can navigate it safely, rather than simply deferring social media use. This includes addressing features that may expose users to safety risks, prolong the time users spend on platforms, or worsen mental health outcomes.

- **Strengthen age assurance measures to more accurately identify users' age**. Many age-based protections are only as effective as the age assurance mechanisms that underpin them. Where platforms cannot reliably determine whether a user is a child or an adult, age-appropriate safeguards cannot be meaningfully applied or enforced. Robust age assurance is therefore a necessary foundation for any effective regulatory framework for young users.

- **Empower young people to navigate the online environment in safe and healthy ways, and support their parents in guiding them to do so.** Social media offers young people meaningful opportunities to learn and connect, but it also presents risks to their healthy development and well-being. Recognising that online environments have become an increasingly important part of young people's daily lives, young people should be equipped with the judgement, critical thinking and healthy digital habits needed to navigate these spaces safely, while parents should be supported with the knowledge and confidence to guide their children in developing these capabilities.

- **Promote a whole-of-society response, recognising that no single intervention is sufficient on its own.** Families, schools, healthcare providers, community partners, platform operators, and government must work together to safeguard and support young people's well-being.

  Parents have a responsibility to model healthy digital habits, maintain open conversations with their children about their online experiences, and set boundaries that are consistent and age-appropriate. This responsibility begins well before a child first encounters social media. By investing in screen-free experiences from early childhood through play, physical activity, creative pursuits, and face-to-face interactions, parents help build the social and

emotional foundations that make young people more resilient when they are exposed to the online environment later in life.

Beyond digital literacy, young people should also be equipped with broader life skills including emotional resilience, critical thinking, and the ability to form and sustain meaningful relationships in person. This will enable them to engage with the online environment confidently and responsibly.

Urban planners and local communities have an important role in creating accessible offline spaces and organising engaging activities that give young people compelling reasons to spend more time socialising and living beyond the screen.

Social media companies must take concrete actions to safeguard young people’s safety and well-being. These include removing harmful and addictive platform features, enabling robust parental or self-regulating controls, and cooperating with relevant authorities to meet regulatory requirements.

Ultimately, protecting young people in the digital age is a shared responsibility, and will require sustained commitment from all parts of society.

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6. References

[1] Huang, P., Chan, S. Y., Zhou, K. X., Chuah, J., Manahan, A. M. A., Law, E. C. N., Shorey, S., Zhou, H. J., Fortier, M. V., Chong, Y.-S., Meaney, M. J., & Tan, A. P. (2025). Neurobehavioural links from infant screen time to anxiety. EBioMedicine, 106093. https://doi.org/10.1016/j.ebiom.2025.106093

[2] Orben, A., & Przybylski, A. K. (2019). The association between adolescent well-being and digital technology use. Nature Human Behaviour, 3(2), 173–182. https://doi.org/10.1038/s41562-018-0506-1

[3] Pinquart, M. (2017). Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. Developmental Psychology, 53(5), 873–932. https://doi.org/10.1037/dev0000295

[4] Aichner, T. et al. (2021) 'Twenty-Five Years of Social Media: A Review of Social Media Applications and Definitions from 1994 to 2019', Cyberpsychology, Behavior and Social Networking, 24(4), pp. 215–222. Available at: https://doi.org/10.1089/cyber.2020.0134.

[5] Carr, C.T. and Hayes, R.A. (2015) 'Social Media: Defining, Developing, and Divining', Atlantic Journal of Communication, 23(1), pp. 46–65. Available at: https://doi.org/10.1080/15456870.2015.972282.

[6] Office of the Surgeon General. (2023). Social Media and Youth Mental Health: The U.S. Surgeon General's Advisory. US Department of Health and Human Services.

[7] Berger, M. N., Taba, M., Marino, J. L., Lim, M. S. C., & Skinner, S. R. (2022). Social Media Use and Health and Well-being of Lesbian, Gay, Bisexual, Transgender, and Queer Youth: Systematic Review. Journal of Medical Internet Research, 24(9). https://doi.org/10.2196/38449

[8] Vaingankar, J. A. (2022). Social Media–Driven Routes to Positive Mental Health Among Youth: Qualitative Enquiry and Concept Mapping Study. JMIR Pediatrics and Parenting, 5(1), 1–14. https://doi.org/10.2196/32758

[9] Beyens, I., Pouwels, J. L., van Driel, I. I., Keijsers, L., & Valkenburg, P. M. (2020). The effect of social media on well-being differs from adolescent to adolescent. Scientific reports, 10(1), 10763. https://doi.org/10.1038/s41598-020-67727-7

[10] Cabeza Martinez, B., Cortesi, A. and Vlachos, S., Social media use and youth mental health and well-being: a systematic review of longitudinal and experimental evidence, Publications Office of the European Union, Luxembourg, 2026, https://data.europa.eu/doi/10.2760/3963302, JRC146547.

[11] Blakemore, S. J., & Mills, K. L. (2014). Is adolescence a sensitive period for sociocultural processing?. Annual review of psychology, 65, 187–207. https://doi.org/10.1146/annurev-psych-010213-115202

[12] Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. Molecular Psychiatry, 27(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

[13] Barzilay, R., Pimentel, S. D., Tran, K. T., Visoki, E., Pagliaccio, D., & Auerbach, R. P. (2025). Smartphone Ownership, Age of Smartphone Acquisition, and Health Outcomes in Early Adolescence. Pediatrics. https://doi.org/10.1542/peds.2025-072941

[14] National Youth Mental Health Study conducted by Institute of Mental Health (2024) defines *excessive social media use* as spending more than three hours on social media platforms daily.

[15] Van den Eijnden, R. J. J. M., Lemmens, J. S., & Valkenburg, P. M. (2016). The Social Media Disorder Scale. Computers in Human Behavior, 61, 478–487. https://doi.org/10.1016/j.chb.2016.03.038

[16] Boniel-Nissim M, Marino C, Galeotti T, Blinka L, Ozoliņa K, Craig W et al. A focus on adolescent social media use and gaming in Europe, central Asia and Canada. Health Behaviour in School-aged Children international report from the 2021/2022 survey. Volume 6. Copenhagen: WHO Regional Office for Europe; 2024: CC BY-NC-SA 3.0 IGO.

[17] Boer, M., van den Eijnden, R. J. J. M., Boniel-Nissim, M., Wong, S.-L., Inchley, J. C., Badura, P., Craig, W. M., Gobina, I., Kleszczewska, D., Klanšček, H. J., & Stevens, G. W. J. M. (2020). Adolescents' Intense and Problematic Social Media Use and Their Well-Being in 29 Countries. Journal of Adolescent Health, 66(6), S89–S99. https://doi.org/10.1016/j.jadohealth.2020.02.014

[18] National Youth Mental Health Study conducted by Institute of Mental Health (2024)

[19] Youth Online Behaviours Study conducted by National Council of Social Service (2023)

[20] Nagata, J. M., Otmar, C. D, Shim, J., Balasubramanian, P., Cheng, C. M., Li, E. J., Abubakr A. A. Al-Shoaibi, Shao, I. Y., Ganson, K. T., Testa, A., Kiss, O., He, J., & Baker, F. C. (2025). Social Media Use and Depressive Symptoms During Early Adolescence. JAMA Network Open, 8(5), e2511704–e2511704. https://doi.org/10.1001/jamanetworkopen.2025.11704

[21] Jing, Z., Yang, W., Lei, Z., Junmei, W., Hui, L., & Tianmin, Z. (2025). Correlations between social media addiction and anxiety, depression, FoMO, loneliness and self-esteem among students: A systematic review and meta-analysis. PLOS One, 20(9), e0329466. https://doi.org/10.1371/journal.pone.0329466

[22] Orben, A., Przybylski, A. K., Blakemore, S. J., & Kievit, R. A. (2022). Windows of developmental sensitivity to social media. Nature Communications, 13(1), 1649. https://doi.org/10.1038/s41467-022-29296-3

[23] Bonfanti, R. C., Melchiori, F., Teti, A., Albano, G., Raffard, S., Rodgers, R., & Lo Coco, G. (2024). The association between social comparison in social media, body image concerns and eating disorder symptoms: A systematic review and meta-analysis. Body Image, 52(101841), https://doi.org/10.1016/j.bodyim.2024.101841

[24] Tandoc, E. C., & Goh, Z. H. (2023). Is Facebooking really depressing? Revisiting the relationships among social media use, envy, and depression. Information, Communication & Society, 26(3), 551–567. https://doi.org/10.1080/1369118X.2021.1954975

[25] Maheux, A. J., Laurenceau, J.-P., Roberts, S. R., Nesi, J., Widman, L., & Choukas-Bradley, S. (2024). Longitudinal Change in Appearance-Related Social Media Consciousness and Depressive Symptoms: A Within-Person Analysis during Early-to-Middle Adolescence. Journal of Youth and Adolescence, 53. https://doi.org/10.1007/s10964-024-01998-5

[26] Cyberbullying refers to encountering threats, harassment, or mean, aggressive or rude messages online.

[27] de Segovia Vicente, D., Kyle Van Gaeveren, Murphy, S. L., & Vanden, P. (2023). Does mindless scrolling hamper well-being? Combining ESM and log-data to examine the link between mindless scrolling, goal conflict, guilt, and daily well-being. Journal of Computer-Mediated Communication, 29(1). https://doi.org/10.1093/jcmc/zmad056

[28] Hilbert, M., Thakur, A., Flores, P. M., Zhang, X., Bhan, J. Y., Bernhard, P., & Ji, F. (2024). 8–10% of algorithmic recommendations are 'bad', but… an exploratory risk-utility meta-analysis and its regulatory implications. International Journal of Information Management, 75, 1–13. https://doi.org/10.1016/j.ijinfomgt.2023.102743

[29] Robinson, J., La Sala, L., Kenny, B., Cooper, C., Lamblin, M., Spittal, M., Gao, C., Kunin, M., Nicholas, A., Rezwan, A., Gifford, M., Pirkis, J., & John, A. (2025). How do Australian social media users experience self-harm and suicide-related content? A National cross-sectional survey comparing young people and adults. BMC Public Health, 26(1). https://doi.org/10.1186/s12889-025-25646-0

[30] Lee, H. Y., & Jamieson, J. P. (2020). Getting Fewer “Likes” Than Others on Social Media Elicits Emotional Distress Among Victimized Adolescents. Child Development, 91(6), 2141–2159. https://doi.org/10.1111/cdev.13422