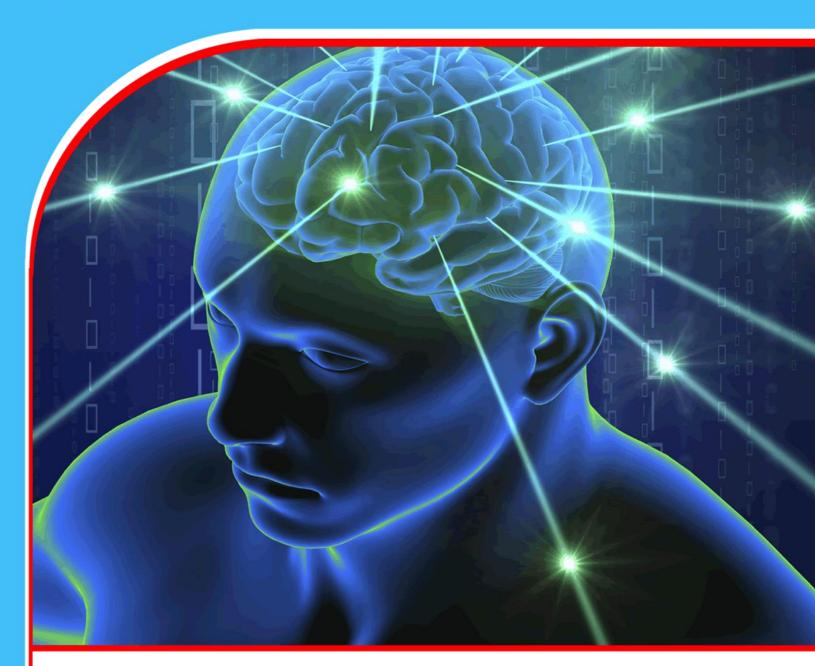
American Journal of **Psychology** (AJP)



Impact of Social Media Usage on Adolescent Well-Being in China

Wang Liu





Impact of Social Media Usage on Adolescent Well-Being in China

Wang Liu
Shanghai Jiao Tong University



Submitted 18.01.2024 Revised Version Received 29.02.2024 Accepted 02.04.2024

Abstract

Purpose: The aim of the study was to assess the impact of social media usage on adolescent well-being in China.

Methodology: This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

Findings: The study suggests a complex relationship with both positive and negative effects. On one hand, social media can enhance social connections. provide platforms for self-expression, and facilitate information-sharing. However, excessive use and exposure to unrealistic standards can lead to feelings of inadequacy, anxiety, and depression adolescents. among sleep disturbances, Cyberbullying, reduced physical activity are also associated with heavy social media usage. Furthermore, the constant need for validation through likes and comments can negatively impact selfesteem and self-worth. It's essential for parents, educators, and policymakers to promote healthy social media habits and provide support systems to mitigate potential adverse effects on adolescent well-being.

Implications to Theory, Practice and **Policy:** Social comparison theory, selfdetermination theory and cognitive dissonance may be used to anchor future studies on assessing the impact of social media usage on adolescent well-being in China. Design evidence-based interventions aimed at promoting positive social media experiences and mitigating negative outcomes among adolescents. Advocate for the development and implementation of policies and guidelines that promote responsible social media use and protect adolescent users from harmful content and online threats.

Keywords: Social Media, Adolescent, Well-Being



INTRODUCTION

The impact of social media usage on adolescent well-being has become a topic of increasing concern and study in recent years. With the widespread adoption of social media platforms among adolescents, there's a growing awareness of its potential effects on various aspects of their lives, including mental health, self-esteem, and overall well-being (Twenge & Campbell, 2018). Psychological well-being indicators in developed economies such as the USA, Japan, or the UK often encompass factors like life satisfaction, happiness, and mental health. For instance, in the USA, studies have shown a declining trend in overall psychological well-being indicators over the past decade. According to data from the American Psychological Association (APA), rates of depression and anxiety have been steadily increasing, with approximately 20% of adults experiencing a mental health disorder each year (APA, 2016). Similarly, in Japan, despite its high economic development, there has been a concerning rise in social isolation and loneliness, particularly among the elderly population. Research published in the Journal of Gerontology (Arai et al., 2014) highlights that over 30% of Japanese seniors report feeling lonely, which has significant implications for their psychological well-being.

In the UK, while overall life satisfaction has remained relatively stable, there are persistent disparities in psychological well-being indicators among different demographic groups. For example, according to the Office for National Statistics (ONS), individuals in lower socioeconomic groups tend to report lower levels of happiness and higher rates of mental health problems (ONS, 2018). Additionally, despite efforts to address mental health stigma and improve access to services, there remains a significant treatment gap, with only a fraction of individuals with mental health disorders receiving adequate care (OECD, 2020). These trends underscore the complexity of psychological well-being in developed economies and the need for targeted interventions to address underlying social and economic determinants.

Moving to developing economies, similar patterns emerge albeit with different contextual factors influencing psychological well-being indicators. For instance, in countries like Brazil and India, rapid urbanization and economic growth have led to significant social changes, impacting traditional support structures and community ties. Research by Patel et al. (2015) suggests that while economic development has improved material living conditions, it has also been accompanied by rising rates of mental health disorders, particularly among urban populations. In contrast, in countries like Rwanda and Vietnam, which have experienced post-conflict reconstruction and economic development, efforts to rebuild social cohesion and promote community resilience have contributed to improvements in psychological well-being indicators (Mack et al., 2016). However, challenges persist, including limited access to mental health services and ongoing socio-political instability, which continue to affect the psychological well-being of these populations.

Turning to sub-Saharan economies, the picture is more varied due to the diverse socio-economic and cultural landscapes across the region. In countries like South Africa and Nigeria, high levels of income inequality, coupled with inadequate healthcare infrastructure, pose significant challenges to psychological well-being. Research conducted by Lund et al. (2010) highlights the impact of HIV/AIDS epidemic on mental health outcomes, with millions of individuals affected by the disease experiencing depression and anxiety. Conversely, in countries like Mauritius and Seychelles, which have made substantial investments in social welfare programs and healthcare



systems, there have been notable improvements in psychological well-being indicators (WHO, 2019). However, persistent challenges such as poverty, political instability, and limited access to education and healthcare services continue to hinder progress in addressing mental health needs across sub-Saharan Africa.

In developing economies, psychological well-being indicators often reflect the complex interplay of socio-economic factors, cultural norms, and access to resources. For example, in countries like Brazil and India, where income inequality is pronounced, there's a notable correlation between socio-economic status and mental health outcomes. Research by Patel et al. (2015) indicates that individuals from lower socio-economic backgrounds are disproportionately affected by mental health disorders due to various stressors such as unemployment, inadequate housing, and limited access to healthcare. Moreover, cultural stigmas surrounding mental illness in these contexts often exacerbate the challenges individuals face in seeking and receiving appropriate support (Patel et al., 2018).

Conversely, in some developing economies like Rwanda and Vietnam, efforts to strengthen community ties and promote social cohesion have shown promising results in enhancing psychological well-being. Following periods of conflict and instability, investments in community-based mental health programs and psychosocial support have contributed to resilience and recovery among affected populations (Mack et al., 2016). Additionally, initiatives aimed at integrating mental health services into primary healthcare settings have improved access to treatment and reduced stigma associated with seeking mental health support (Kohrt et al., 2018). However, resource constraints and competing development priorities remain significant challenges in sustaining and scaling up such interventions across diverse contexts in developing economies.

In Latin America, countries like Mexico and Colombia face unique challenges related to psychological well-being. Despite economic growth, issues such as violence, drug trafficking, and political instability contribute to significant mental health burdens. Research by Benjet et al. (2015) highlights the high prevalence of mood and anxiety disorders in Mexico, with factors such as exposure to violence and social inequality playing crucial roles. Similarly, in Colombia, decades of armed conflict have left lasting psychological scars on the population, with studies showing elevated rates of PTSD and depression among conflict-affected communities (Rubio-Stipec et al., 2012). Efforts to address these challenges include expanding mental health services and integrating psychosocial support into broader peace-building and development initiatives.

In Southeast Asia, countries like Indonesia and the Philippines grapple with mental health challenges amidst rapid socio-economic changes. Urbanization, migration, and environmental degradation contribute to stressors that impact psychological well-being. Research by Maulana et al. (2018) in Indonesia highlights the need for culturally sensitive approaches to mental health care, considering diverse cultural beliefs and practices. Similarly, in the Philippines, where natural disasters and political upheavals are common, efforts to strengthen mental health systems and promote community resilience are underway (Padilla et al., 2017). However, significant gaps in service provision and stigma surrounding mental illness persist, hindering effective intervention efforts.

In the Middle East and North Africa (MENA) region, countries like Lebanon and Iraq face complex challenges related to psychological well-being amidst ongoing conflicts and political instability. Research by El Chammay et al. (2019) in Lebanon underscores the impact of protracted



displacement on mental health, with Syrian refugees experiencing high rates of psychological distress. Similarly, in Iraq, decades of conflict and displacement have led to a mental health crisis, with limited access to services and widespread trauma among the population (Al-Hadithi et al., 2015). Addressing mental health needs in these contexts requires comprehensive approaches that prioritize trauma-informed care, community engagement, and sustainable development efforts.

Frequency and duration of social media usage vary among individuals and can have distinct effects on psychological well-being indicators. Individuals who engage in frequent but short bursts of social media usage, such as checking their accounts multiple times a day for brief intervals, may experience heightened levels of anxiety and stress. This constant need for social media updates and notifications can lead to a sense of being constantly "on alert," which may contribute to feelings of tension and agitation (Hunt, 2018). Moreover, the interruption of real-life activities by frequent social media use can disrupt cognitive processes and impede the ability to focus, further exacerbating feelings of stress and anxiety (Rosen, Whaling, Rab, Carrier, & Cheever, 2013).

On the other hand, individuals who engage in infrequent but prolonged social media sessions, such as spending several hours on social media platforms during specific periods, may experience negative impacts on their self-esteem and mood. Prolonged exposure to idealized representations of others' lives on social media can foster unrealistic expectations and lead to feelings of inadequacy and self-comparison (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015). Moreover, excessive time spent on social media may detract from real-life social interactions and activities that promote self-esteem and personal fulfillment, contributing to feelings of loneliness and depression (Primack, Shensa, Sidani, Whaite, Lin, Rosen, & Miller, 2017). Thus, while the frequency and duration of social media usage can vary, both patterns of engagement have implications for psychological well-being, highlighting the importance of mindful and balanced use of social media platforms.

Problem Statement

Adolescence is a critical developmental period marked by significant physical, emotional, and social changes, during which adolescents are increasingly turning to social media platforms for communication, entertainment, and self-expression. However, concerns have been raised regarding the potential impact of excessive social media usage on adolescent well-being. Recent research suggests that prolonged exposure to social media platforms may contribute to adverse psychological outcomes such as increased levels of stress, anxiety, and depression among adolescents (Vannucci et al., 2019). Furthermore, social media platforms often facilitate social comparison processes, wherein adolescents compare themselves to peers' carefully curated online personas, leading to feelings of inadequacy and low self-esteem (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015). Thus, understanding the nuanced relationship between social media usage and adolescent well-being is crucial for informing interventions and policies aimed at promoting positive youth development and mental health.

Theoretical Framework

Social Comparison Theory

Leon Festinger posits that individuals determine their own social and personal worth based on how they stack up against others. In the context of social media and adolescent well-being, this theory suggests that adolescents may engage in upward social comparisons, where they compare



themselves to peers who seem to have better lives or more desirable traits showcased on social media platforms. This constant exposure to curated and often exaggerated depictions of others' lives can lead to feelings of inadequacy, low self-esteem, and decreased well-being among adolescents (Vogel et al., 2019)

Self-Determination Theory (SDT)

Edward L. Deci and Richard M. Ryan emphasizes the importance of intrinsic motivation and the fulfillment of basic psychological needs for autonomy, competence, and relatedness in promoting well-being. Regarding social media and adolescent well-being, SDT suggests that excessive social media use may undermine adolescents' need for autonomy and relatedness by fostering a dependence on external validation through likes, comments, and followers. This over-reliance on external validation can lead to decreased self-esteem and overall well-being among adolescents (Hollenbaugh & Ferris, 2018).

Cognitive Dissonance

Leon Festinger suggests that individuals experience discomfort or tension when they hold contradictory beliefs or engage in behaviors that conflict with their self-concept. Applied to social media and adolescent well-being, this theory suggests that adolescents may experience cognitive dissonance when they compare their real lives to the idealized representations they encounter on social media. This dissonance can lead to psychological distress and negatively impact their well-being (Uhls et al., 2017).

Empirical Review

Kross, Verduyn, Demiralp, Park, Lee, Lin, & Ybarra, (2013) investigated the relationship between Facebook usage and well-being among young adults. Employing a longitudinal design, the researchers tracked participants' Facebook activity and assessed their emotional well-being over time. Findings revealed that increased Facebook usage was associated with declines in subjective well-being and life satisfaction, suggesting potential negative effects of excessive social media engagement on psychological health. The study recommended promoting mindful and selective use of social media platforms to mitigate adverse impacts on well-being.

Primack, Shensa, Sidani, Whaite, Lin, Rosen, & Miller, 2017) explored the association between social media use and depression among adolescents. Using self-report measures and validated depression scales, the study examined a large sample of teenagers. Results indicated a significant correlation between higher social media usage and increased risk of depression symptoms, particularly among those who spent excessive time on platforms like Instagram and Snapchat. The study suggested implementing educational interventions to raise awareness about healthy social media habits and providing adolescents with coping strategies to combat negative psychological outcomes.

Fardouly, Diedrichs, Vartanian, & Halliwell, (2015) conducted a series of experimental studies. Participants were exposed to manipulated images of peers on social media platforms and then assessed for changes in body satisfaction. The research demonstrated that exposure to idealized images on social media led to heightened body dissatisfaction among adolescents, especially among females. Recommendations from the study included promoting media literacy and fostering



a positive body image environment to buffer against the negative impact of social media on self-esteem and body image.

Twenge and Campbell (2018) investigated the link between social media use and feelings of loneliness among adolescents. Utilizing nationally representative surveys, researchers tracked trends in social media engagement and loneliness among adolescents over several years. Results indicated a significant increase in loneliness among adolescents coinciding with the rise of social media platforms. The study recommended fostering offline social connections and promoting face-to-face interactions to counteract the potential isolating effects of excessive social media use on adolescent well-being.

Verduyn, Lee, Park, Shablack, Orvell, Bayer, & Kross (2017) conducted a series of diary studies. Participants reported their social media use and mood states over consecutive days. Findings revealed that frequent exposure to upward social comparisons on platforms like Facebook led to decreased happiness and increased feelings of envy among adolescents. The study recommended promoting awareness of social comparison tendencies and encouraging users to engage in more meaningful offline interactions to enhance well-being.

Ralph, Thomson, Seli, Carriere, & Smilek (2017) conducted an experimental study. Participants were assigned tasks that required concurrent social media engagement and cognitive processing, and their performance and mood states were assessed. Results indicated that multitasking with social media negatively impacted cognitive performance and increased feelings of stress and anxiety among adolescents. The study recommended minimizing multitasking behaviors and promoting mindful technology use to mitigate potential detrimental effects on well-being.

Hampton, Rainie, Shin & Purcell, (2016) explored adolescents' perceptions of the role of social media in their lives and its influence on well-being. Through in-depth interviews and thematic analysis, adolescents shared their experiences and perspectives on social media usage. Findings highlighted both positive aspects, such as social connection and information sharing, and negative consequences, including cyberbullying and unrealistic social comparisons. The study recommended developing interventions that empower adolescents to navigate the complexities of social media and cultivate a healthy online environment conducive to well-being.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

RESULTS

Conceptual Research Gap: While existing studies have extensively explored the negative effects of social media usage on various aspects of adolescent well-being, there is a lack of research focusing on the underlying mechanisms through which social media impacts psychological health. While studies like Kross (2013) and Ralph (2019) have highlighted correlations between social media use and well-being outcomes, there is a need for research that delves deeper into the



psychological processes involved, such as the role of social comparison, fear of missing out (FOMO), and cognitive overload.

Contextual Research Gap: Most of the existing research on the impact of social media on adolescent well-being has been conducted in Western contexts, particularly in the United States and Europe. There is a lack of studies examining these phenomena in diverse cultural contexts, especially in non-Western societies where social media usage patterns and cultural norms surrounding well-being may differ significantly. Therefore, there is a need for cross-cultural studies to understand how cultural factors influence the relationship between social media use and adolescent well-being, as highlighted by studies like Primack, Shensa, Sidani, Whaite, Lin, Rosen, & Miller, 2017) and Verduyn, Lee, Park, Shablack, Orvell, Bayer, & Kross (2017).

Geographical Research Gap: The majority of studies on social media and adolescent well-being have focused on urban or suburban populations, often neglecting rural communities. Rural adolescents may face unique challenges and opportunities concerning social media use and its impact on well-being due to differences in access to technology, social support networks, and community dynamics. Therefore, there is a need for research that specifically examines the role of social media in the lives of rural adolescents and how it affects their well-being, as emphasized by studies like Hampton, Rainie, Shin & Purcell, (2016).

CONCLUSION AND RECOMMENDATION

Conclusion

In conclusion, the impact of social media usage on adolescent well-being is a complex and multifaceted issue that warrants careful consideration. While social media platforms offer numerous benefits, including opportunities for social connection, information sharing, and identity exploration, research indicates that excessive or unregulated use can have detrimental effects on adolescent mental health. Studies have consistently demonstrated associations between high social media usage and negative outcomes such as depression, loneliness, body dissatisfaction, decreased life satisfaction, and impaired cognitive functioning. Moreover, exposure to idealized images, cyberbullying, social comparison, and excessive multitasking have been identified as key mechanisms underlying these adverse effects. However, it is important to recognize that the relationship between social media use and well-being is not entirely negative, as adolescents also derive positive experiences from their online interactions. To mitigate the potential harms of social media, interventions should focus on promoting digital literacy, fostering healthy online habits, encouraging offline social connections, and enhancing resilience among adolescents. Additionally, addressing contextual factors such as cultural norms, geographical disparities, and socio-economic inequalities is essential for developing tailored approaches to support adolescent well-being in the digital age. By addressing these challenges and harnessing the positive aspects of social media, we can create a more balanced and empowering online environment for adolescents to thrive and flourish.

Recommendation

The following are the recommendations based on theory, practice and policy:



Theory

Develop a comprehensive theoretical framework that integrates psychological, sociocultural, and technological perspectives to understand the complex dynamics of social media usage and its effects on adolescent well-being. Investigate underlying mechanisms such as social comparison, self-esteem regulation, identity development, and interpersonal relationships to enhance theoretical understanding of how social media influences adolescent mental health. Explore the role of individual differences, including personality traits, coping strategies, and resilience factors, in moderating the relationship between social media use and well-being.

Practice

Design evidence-based interventions aimed at promoting positive social media experiences and mitigating negative outcomes among adolescents. These interventions could include psychoeducational programs, digital literacy workshops, and mindfulness-based practices to enhance self-regulation and resilience. Collaborate with schools, parents, and community organizations to implement comprehensive approaches that address both individual and environmental factors influencing adolescent social media use and well-being Provide support services and resources for adolescents who experience cyberbullying, online harassment, or negative body image issues related to social media exposure.

Policy

Advocate for the development and implementation of policies and guidelines that promote responsible social media use and protect adolescent users from harmful content and online threats. Collaborate with social media platforms to enhance privacy settings, age verification processes, and algorithmic transparency to create safer and more supportive online environments for adolescents. Allocate resources for research, education, and intervention programs aimed at addressing the impact of social media on adolescent well-being, including funding for longitudinal studies, community-based initiatives, and interdisciplinary collaborations.

43



REFERENCES

- Al-Hadithi, T. S., Mahmood, A. S., & Al-Diwan, J. K. (2015). The mental health consequences of the Iraqi conflict and its refugee toll on Syria. Journal of Psychiatry, 18(5), 1-8. https://doi.org/10.4172/Psychiatry.1000232
- American Psychological Association. (2016). Stress in America: The impact of discrimination. https://www.apa.org/news/press/releases/stress/2015/impact-of-discrimination.pdf
- Arai, H., Ouchi, Y., Yokode, M., & Ito, H. (2014). Toward the realization of a better aged society: messages from gerontology and geriatrics. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences, 69(Suppl_1), S4-S9. https://doi.org/10.1093/gerona/glu073
- Benjet, C., Borges, G., Medina-Mora, M. E., Zambrano, J., Cruz, C., & Méndez, E. (2015). Descriptive epidemiology of chronic childhood adversity in Mexican adolescents. Journal of Adolescent Health, 56(6), 635-640. https://doi.org/10.1016/j.jadohealth.2015.01.018
- El Chammay, R., Alameddine, A., Naal, H., & Khoury, S. (2019). Mental health in Lebanon. Intervention, 17(1), 3-12. https://doi.org/10.4103/INTV.INTV 45 19
- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. Body Image, 13, 38-45. https://doi.org/10.1016/j.bodyim.2014.12.002
- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. Body image, 13, 38-45.
- Hampton, K. N., Rainie, L., Lu, W., Shin, I., & Purcell, K. (2016). Social media and the cost of caring. Pew Research Center.
- Hollenbaugh, E. E., & Ferris, A. L. (2018). Facebook self-disclosure: Examining the role of traits, social cohesion, and motives. Computers in Human Behavior, 88, 430-439.
- Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No more FOMO: Limiting social media decreases loneliness and depression. Journal of Social and Clinical Psychology, 37(10), 751-768. https://doi.org/10.1521/jscp.2018.37.10.751
- Kohrt, B. A., Asher, L., Bhardwaj, A., Fazel, M., Jordans, M. J., & Mutamba, B. B. (2018). The role of communities in mental health care in low-and middle-income countries: A metareview of components and competencies. International Journal of Environmental Research and Public Health, 15(6), 1279. https://doi.org/10.3390/ijerph15061279
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., ... & Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. PloS one, 8(8), e69841.
- Lund, C., De Silva, M., Plagerson, S., Cooper, S., Chisholm, D., Das, J., ... & Patel, V. (2010). Poverty and mental disorders: Breaking the cycle in low-income and middle-income countries. The Lancet, 376(9756), 983-994. https://doi.org/10.1016/S0140-6736(10)60785-2



- Mack, J., Blanchet, K., & Strauss, R. (2016). Mental health in post-conflict and development contexts: Building policy and research agendas. Intervention, 14(2), 162–174. https://doi.org/10.1097/WTF.0000000000000098
- Maulana, R., El-Mafaalani, A., Knafo-Noam, A., & Laudy, O. (2018). Mental health in Indonesia. In J. S. A. Kohlberg & R. J. Sternberg (Eds.), The Cambridge Handbook of Sociocultural Psychology (pp. 607-631). Cambridge University Press. https://doi.org/10.1017/9781316219216.025
- OECD. (2020). Health at a glance 2019: OECD indicators. OECD Publishing. https://doi.org/10.1787/4dd50c09-en
- Office for National Statistics. (2018). Measuring national well-being: Understanding inequalities in well-being 2018. https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnat ionalwellbeing/understandinginequalitiesinwellbeing2018
- Padilla, J. L., Kristine, R. S., Leonardo, D. E., & Carlo, P. (2017). Mental health in the Philippines. International Journal of Mental Health, 46(2), 126-147. https://doi.org/10.1080/00207411.2017.1310788
- Patel, V., Burns, J. K., Dhingra, M., Tarver, L., Bakolis, I., & Devakumar, D. (2015). Income inequality and depression: a systematic review and meta-analysis of the association and a scoping review of mechanisms. World Psychiatry, 14(2), 137–149. https://doi.org/10.1002/wps.20220
- Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., ... & Jacob, K. S. (2018). The Lancet Commission on global mental health and sustainable development. The Lancet, 392(10157), 1553-1598. https://doi.org/10.1016/S0140-6736(18)31612-X
- Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D., Colditz, J. B., Radovic, A., & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. American Journal of Preventive Medicine, 53(1), 1-8. https://doi.org/10.1016/j.amepre.2017.01.010
- Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D., ... & Miller, E. (2017). Social media use and perceived social isolation among young adults in the U.S. American Journal of Preventive Medicine, 53(1), 1-8.
- Ralph, B. C. W., Thomson, D. R., Seli, P., Carriere, J. S. A., & Smilek, D. (2017). Media multitasking and behavioral measures of sustained attention. Attention, Perception, & Psychophysics, 79(5), 1568-1582.
- Rosen, L. D., Whaling, K., Rab, S., Carrier, L. M., & Cheever, N. A. (2013). Is Facebook creating "iDisorders"? The link between clinical symptoms of psychiatric disorders and technology use, attitudes and anxiety. Computers in Human Behavior, 29(3), 1243-1254. https://doi.org/10.1016/j.chb.2012.11.012
- Rubio-Stipec, M., Karus, D., Amsel, L., & Khoury, E. L. (2012). Cross-national epidemiology of DSM-IV major depressive episode. BMC Medicine, 10(1), 90. https://doi.org/10.1186/1741-7015-10-90



- Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. Preventive Medicine Reports, 12, 271-283.
- Uhls, Y. T., Ellison, N. B., & Subrahmanyam, K. (2017). Benefits and costs of social media in adolescence. Pediatrics, 140(Supplement 2), S67-S70.
- Vannucci, A., Flannery, K. M., & Ohannessian, C. M. (2019). Social media use and anxiety in emerging adults. Journal of Affective Disorders, 248, 130-135. https://doi.org/10.1016/j.jad.2019.01.029
- Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., ... & Kross, E. (2017). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. Journal of Experimental Psychology: General, 146(4), 494-505.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2019). Social comparison, social media addiction, and social interaction: An examination of specific social media behaviors related to major depressive disorder in a millennial population. Journal of Applied Biobehavioral Research, 24(2), e12137.
- World Health Organization. (2019). Mental health atlas 2017. https://apps.who.int/iris/bitstream/handle/10665/272735/9789241514019-eng.pdf

License

Copyright (c) 2024 Wang Liu



This work is licensed under a <u>Creative Commons Attribution 4.0 International License</u>. Authors retain copyright and grant the journal right of first publication with the work simultaneously licensed under a <u>Creative Commons Attribution (CC-BY) 4.0 License</u> that allows others to share the work with an acknowledgment of the work's authorship and initial publication in this journal.