

REVIEW

Cracking The Code: Social Media's Impact On Mental Health

Z. Qadrie¹, M. Maqbool², O. Oral³, I. Ojo⁴

¹ Department of Pharmacology, Government Medical College Baramulla, ² Department of Pharmaceutical Sciences, University of Kashmir, Jammu and Kashmir, India, ³ Ege University, Faculty of Sports Sciences, Department of Health Sciences and Sports, Izmir, Turkey, ⁴ University College Hospital, Ibadan, Oyo State, Nigeria

ABSTRACT

Introduction: The advent of social media has profoundly transformed modern society, offering individuals a novel medium for establishing connections and articulating their perspectives. However, the impact of social media on mental health, particularly among adolescents, has garnered increasing attention in recent research. The dual nature of social media—offering both benefits and potential risks—necessitates a thorough examination of its effects on psychological well-being.

Methods: This paper conducts a comprehensive literature review, synthesizing existing studies that investigate the relationship between social media use and mental health outcomes. The present review was conducted by researching scientific literature for relevant data from the US National Library of Medicine (NLM), PubMed, MEDLINE, and SportDiscus. The key areas of focus included self-esteem, body image, loneliness, anxiety, depression, and overall psychological well-being. The review also explores underlying mechanisms such as social comparison, cyberbullying, and the fear of missing out (FOMO). Furthermore, individual differences, including age, gender, personality traits, and pre-existing mental health conditions, are analyzed to understand their moderating effects on this relationship.

Results: The findings indicate a multifaceted relationship between social media use and mental health. Excessive engagement with social media has been associated with a variety of adverse outcomes, including diminished self-esteem, elevated feelings of loneliness, and exacerbated anxiety and depression. The phenomenon of social comparison and the occurrence of cyberbullying have been identified as contributing factors to these adverse effects. Furthermore, the phenomenon of fear of missing out (FOMO) has been demonstrated to exacerbate feelings of inadequacy and disconnection. Individual differences have been demonstrated to play a significant role in moderating these outcomes, suggesting that not all users are equally affected by social media interactions.

Conclusion: This review underscores the necessity for further research to clarify the intricate pathways through which social media influences mental health. It is imperative to comprehend these dynamics to formulate efficacious strategies that mitigate potential harms while amplifying the beneficial aspects of digital social interactions. Future studies should aim to identify targeted interventions that can support adolescents in navigating the challenges posed by social media, ultimately promoting healthier online experiences.

Keywords: social media, mental health, self-esteem, loneliness, fear of missing out (FOMO).

Z. Qadrie, M. Maqbool, O. Oral, I. Ojo. *Cracking The Code: Social Media's Impact On Mental Health*. *Scientific Chronicles* 2025; 30(3): 415-427

INTRODUCTION

Social media platforms have undeniably become indispensable components of contemporary society, revolutionizing the way people communicate, share information, and engage in social interactions on a global scale. With billions of users worldwide, platforms like Facebook, Instagram, Twitter, and Snapchat have facilitated unprecedented connectivity, enabling individuals to forge connections, exchange ideas, and express themselves in ways previously unimaginable. However, amid the myriad benefits of social media, concerns have emerged regarding its potential implications for mental health and well-being.

Over the past decade, scholarly attention has increasingly turned towards investigating the intricate relationship between social media usage and various dimensions of mental health [1,2]. While some studies have posited positive associations, such as heightened social support and a greater sense of belonging stemming from online interactions, others have underscored potential negative repercussions, including heightened feelings of loneliness, anxiety, and depression among users. Moreover, the omnipresence of social comparison, cyberbullying, and the fear of missing out (FOMO) within the digital realm has compounded worries regarding their impact on individuals' self-esteem, body image, and overall psychological welfare. Drawing upon a diverse array of studies spanning disciplines such as psychology, sociology, and communication studies, the aim is to elucidate the multifaceted interplay between digital social interactions and psychological well-being. Moreover, the review seeks to delve into potential mechanisms underpinning these associations

while exploring how individual differences may serve to moderate the relationship between social media use and mental health outcomes [2-4].

Understanding the nuanced relationship between social media and mental health is paramount for the development of targeted interventions aimed at fostering positive online experiences while mitigating potential harms. By discerning key factors contributing to both favorable and adverse outcomes, researchers and practitioners can collaboratively endeavor to cultivate healthier digital environments, empowering individuals to navigate social media in a manner conducive to their mental health and well-being. The pervasiveness of social media platforms in modern society cannot be overstated. These platforms serve as virtual arenas where individuals converge to communicate, share experiences, and express themselves [5,6]. The sheer scale of participation, with billions of users globally, underscores the transformative impact of social media on human interaction. Despite the manifold advantages that social media affords, concerns have surfaced regarding its ramifications for mental health. Research over the past decade has increasingly scrutinized the relationship between social media use and mental health outcomes. While certain studies have illuminated positive aspects, such as heightened social support and a sense of belonging, others have delineated potential negative consequences, including elevated levels of loneliness, anxiety, and depression. One of the prevailing concerns is the pervasive nature of social comparison facilitated by these platforms. Users are inundated with carefully curated depictions of others' lives, often portraying idealized versions that may engender feelings of inadequacy or low self-

esteem. Moreover, the prevalence of cyberbullying and the fear of missing out exacerbate psychological distress among users, impacting their self-esteem, body image, and overall well-being [7-9].

To comprehensively elucidate the relationship between social media and mental health, it is imperative to explore potential mechanisms underlying these associations. Social comparison theory, for instance, elucidates how constant exposure to curated content on social media can trigger upward social comparisons, leading to negative self-evaluations and diminished self-esteem. Similarly, cyberbullying perpetuated through online platforms can have deleterious effects on individuals' mental health, precipitating feelings of anxiety, depression, and social isolation. Individual differences also play a pivotal role in moderating the relationship between social media use and mental health outcomes. Factors such as age, gender, personality traits, and pre-existing mental health conditions can shape individuals' susceptibility to the psychological effects of social media. Adolescents, for instance, may be particularly vulnerable to the adverse impacts of social media due to ongoing identity formation and heightened susceptibility to peer influence. Despite the myriad challenges posed by social media, it is crucial to acknowledge its potential as a tool for positive change [10-12]. Social media platforms have been instrumental in raising awareness about mental health issues, fostering supportive communities, and facilitating access to resources and treatment. Moreover, by harnessing insights gleaned from research, policymakers, educators, and technology developers can collaborate to devise interventions aimed at promoting responsible

social media use and safeguarding users' mental health. The relationship between social media use and mental health outcomes is multifaceted and dynamic, influenced by a myriad of individual, interpersonal, and contextual factors. While social media platforms offer unparalleled opportunities for connectivity and self-expression, they also pose significant risks to users' psychological well-being. By fostering a nuanced understanding of this complex interplay and developing targeted interventions, stakeholders can work towards creating healthier digital environments that empower individuals to navigate social media in ways that support their mental health and well-being [13-15].

The Impact of Social Media on Self-Esteem and Body Image

Social media has fundamentally altered the way individuals perceive themselves and their bodies, often exerting profound influences on self-esteem and body image. In the digital age, platforms like Instagram, Facebook, and TikTok serve as virtual stages where users meticulously curate their online personas, presenting idealised images of beauty, success, and happiness. However, behind the polished façade lies a complex interplay of psychological processes that can significantly impact individuals' perceptions of themselves and their bodies. One of the most prominent effects of social media on self-esteem is the phenomenon of social comparison. Users are constantly exposed to carefully crafted portrayals of others' lives, characterised by glamorous vacations, flawless appearances, and enviable accomplishments [16, 17]. This incessant stream of seemingly perfect lifestyles can engender feelings of

inadequacy and inferiority, as individuals compare themselves unfavourably to the idealised versions presented on social media. Research has shown that frequent engagement in upward social comparisons, wherein individuals assess themselves against perceived superior others, is associated with diminished self-esteem and heightened feelings of dissatisfaction with one's own life circumstances [18].

Moreover, the prevalence of photo-editing tools and filters on social media platforms further exacerbates unrealistic beauty standards, contributing to distorted perceptions of one's own appearance. Filters that enhance features like skin smoothness, facial symmetry, and body proportions can create unattainable ideals of beauty, leading individuals to feel dissatisfied with their natural appearance. This phenomenon is particularly salient among adolescents and young adults, who are more susceptible to social influences and may internalise unrealistic beauty norms propagated by social media. Body image, encompassing perceptions, thoughts, and feelings about one's physical appearance, is also significantly influenced by social media. The constant barrage of images showcasing slender, toned bodies can foster body dissatisfaction and drive individuals towards unhealthy behaviors in pursuit of an unattainable ideal [19, 20]. Studies have demonstrated a correlation between frequent exposure to idealized body images on social media and negative body image outcomes, including body shame, weight-related concerns, and disordered eating behaviors. Furthermore, social media platforms have become breeding grounds for body shaming and criticism, wherein individuals are subjected to scrutiny and

judgment based on their physical appearance. Trolling, fat-shaming, and other forms of online harassment can have devastating effects on individuals' self-esteem and body image, leading to feelings of shame, worthlessness, and social withdrawal. The anonymity afforded by online platforms can embolden perpetrators to engage in hurtful behaviour with impunity, exacerbating the psychological harm inflicted upon victims [21,22].

Despite these challenges, social media also holds the potential to foster body positivity and self-acceptance. The body positivity movement, which has gained traction on platforms like Instagram and Twitter, promotes acceptance and appreciation of diverse body shapes, sizes, and appearances. Through hashtags like #bodypositivity and #bodyacceptance, individuals are encouraged to challenge conventional beauty standards and embrace their unique attributes. Additionally, influencers and content creators who share authentic, unfiltered representations of themselves can serve as powerful role models, inspiring others to cultivate self-love and confidence. To mitigate the negative impact of social media on self-esteem and body image, various strategies can be employed at both individual and societal levels. Media literacy programs aimed at educating users about the manipulative tactics employed in digital imagery can empower individuals to critically evaluate the content they consume and discern between reality and fiction. Moreover, fostering a culture of inclusivity, kindness, and empathy online can help counteract the harmful effects of cyberbullying and body shaming, creating safer and more supportive digital environments for all users [22-24].

Social Media Use and Loneliness

Social media platforms have transformed the way individuals connect and interact with others, offering unprecedented opportunities for communication, information sharing, and social engagement. However, amid the virtual connectivity facilitated by these platforms, concerns have emerged regarding their potential impact on feelings of loneliness and social isolation. Indeed, while social media may provide avenues for connecting with others, research suggests that excessive or passive use of these platforms can exacerbate feelings of loneliness and contribute to a sense of disconnection. The paradox of social media lies in its ability to foster both connectivity and loneliness simultaneously. On one hand, platforms like Facebook, Instagram, and Twitter enable users to maintain relationships, stay updated on friends' lives, and participate in virtual communities. These platforms can be particularly valuable for individuals who may struggle to engage in face-to-face interactions due to geographical distance, physical limitations, or social anxiety. Moreover, social media offers a sense of belonging and validation through likes, comments, and shares, reinforcing social bonds and bolstering self-esteem [25, 26].

However, the very features that make social media appealing can also fuel feelings of loneliness and inadequacy. The curated nature of social media content, wherein users selectively share highlights of their lives while concealing struggles and vulnerabilities, can create a distorted perception of reality. Individuals may compare their own lives unfavorably to the seemingly perfect images presented on social media, leading to feelings of inadequacy and loneliness. This phenomenon, known as the "highlight reel

effect," can foster unrealistic expectations and diminish satisfaction with one's own life circumstances. Moreover, the passive consumption of social media content, characterized by mindless scrolling and voyeuristic observation of others' lives, can exacerbate feelings of loneliness and social isolation. Research has shown that individuals who spend excessive time on social media, particularly in a passive capacity, tend to report higher levels of loneliness and lower levels of subjective well-being. The lack of meaningful engagement and authentic connection inherent in passive social media use can leave individuals feeling disconnected and unfulfilled, despite their apparent digital connectivity [26-28].

The fear of missing out (FOMO) represents another significant driver of social media-induced loneliness. As users are bombarded with a constant stream of updates, notifications, and status updates, they may experience anxiety and apprehension about missing out on important events, experiences, or social gatherings. This fear of being excluded or left behind can intensify feelings of loneliness and compel individuals to compulsively check their social media feeds in a bid to stay connected. Paradoxically, this incessant digital tethering can exacerbate feelings of isolation and prevent individuals from fully engaging in meaningful offline interactions. Furthermore, the prevalence of cyberbullying and online harassment on social media platforms can contribute to feelings of loneliness and social exclusion [29, 30]. Individuals who fall victim to cyberbullying may experience profound psychological distress, including feelings of shame, worthlessness, and alienation. The anonymity afforded by online platforms can embolden

perpetrators to engage in hurtful behavior with impunity, exacerbating the psychological harm inflicted upon victims and perpetuating feelings of loneliness and social isolation. Despite these challenges, social media also holds promise as a tool for combating loneliness and fostering social connections. Virtual support groups, online forums, and digital communities provide avenues for individuals to connect with others who share similar interests, experiences, or challenges.

Moreover, initiatives that promote authenticity, vulnerability, and genuine human connection on social media platforms can help counteract feelings of loneliness and foster meaningful relationships. The relationship between social media use and loneliness is complex and multifaceted, influenced by a myriad of individual, interpersonal, and contextual factors. While social media offers opportunities for connectivity and social interaction, excessive or passive use of these platforms can exacerbate feelings of loneliness and social isolation. By fostering digital literacy, promoting authentic engagement, and cultivating a culture of inclusivity and kindness online, stakeholders can work towards creating healthier digital environments that support social connections and mitigate the negative impacts of social media-induced loneliness [31-33].

Anxiety and Depression in the Digital Era

Anxiety and depression are among the most prevalent mental health disorders globally, and the advent of the digital age has introduced new complexities to their manifestation and management. In recent years, research has increasingly focused on the impact of digital technology, particularly social media, on the prevalence and severity of

anxiety and depression. While digital platforms offer unprecedented opportunities for communication, connectivity, and information sharing, they also present unique challenges that can exacerbate symptoms of anxiety and depression [34,35]. One of the primary concerns surrounding anxiety and depression in the digital age is the pervasive nature of social comparison facilitated by social media platforms. Users are constantly exposed to carefully curated depictions of others' lives, often showcasing idealized versions of reality characterized by success, happiness, and fulfillment. This constant exposure to seemingly perfect lifestyles can foster feelings of inadequacy, insecurity, and self-doubt, particularly among individuals already prone to anxiety and depression [36].

Moreover, the phenomenon of "FOMO" or fear of missing out is exacerbated by social media, contributing to feelings of anxiety and distress. As users scroll through their feeds, they are bombarded with images and updates about social events, gatherings, and experiences they may not be part of. This fear of being excluded or left behind can intensify feelings of loneliness, isolation, and anxiety, perpetuating a cycle of negative thoughts and emotions. The digital era has also transformed the landscape of interpersonal relationships, with online interactions often replacing face-to-face communication [37]. While social media allows individuals to maintain connections with friends, family, and acquaintances across vast distances, it can also lead to a sense of disconnection and alienation. Shallow or superficial interactions on digital platforms may fail to provide the depth of emotional support and intimacy that individuals need to cope with anxiety and depression. Cyberbullying and online harassment

represent significant threats to mental health in the digital age, contributing to feelings of fear, shame, and worthlessness. The anonymity afforded by online platforms can embolden perpetrators to engage in hurtful behavior with impunity, leading to profound psychological distress among victims. Cyberbullying victims are at increased risk of developing anxiety, depression, and other mental health problems, further exacerbating the burden of these disorders in the digital era [38].

Furthermore, the constant connectivity enabled by smartphones and other digital devices has blurred the boundaries between work and personal life, contributing to stress and burnout. The expectation of being constantly available and responsive to emails, messages, and notifications can heighten anxiety and undermine individuals' ability to relax and recharge. The pressure to maintain a curated online persona can also contribute to feelings of inadequacy and impostor syndrome, particularly among individuals who experience anxiety or depression. Despite these challenges, digital technology also offers innovative solutions for managing anxiety and depression and improving access to mental health care. Mobile apps, online therapy platforms, and telemedicine services provide convenient and affordable options for individuals seeking support and treatment. These digital interventions can help individuals develop coping skills, track their mood and symptoms, and connect with trained professionals from the comfort and privacy of their own homes [39, 40].

Anxiety and depression in the digital age are complex and multifaceted phenomena shaped by the pervasive influence of digital technology. While social media and online interactions offer opportunities for

communication and connection, they also present unique challenges that can exacerbate symptoms of anxiety and depression. Cyberbullying, FOMO, and the constant pressure to maintain a curated online persona contribute to feelings of inadequacy, loneliness, and distress. However, digital technology also holds promise as a tool for managing anxiety and depression, with mobile apps, online therapy platforms, and telemedicine services providing innovative solutions for improving access to mental health care. By addressing the challenges and leveraging the opportunities presented by digital technology, we can work towards a future where individuals can navigate the digital landscape in ways that support their mental health and well-being [41,42].

Individual Differences and Moderators

Individual differences and moderators play a crucial role in shaping how individuals experience and respond to various aspects of the digital landscape, including social media use and its impact on mental health. These factors encompass a wide range of personal characteristics, traits, and circumstances that can influence susceptibility to both positive and negative effects of digital technology. Understanding these individual differences and moderators is essential for developing targeted interventions and strategies to promote positive outcomes and mitigate potential harms in the digital age [43].

Age represents one of the most salient individual differences in the context of digital technology use. Younger individuals, particularly adolescents and young adults, are often more immersed in digital environments and may be more susceptible to the influence of social media on their mental health.

Adolescence is a period of rapid developmental changes, including identity formation and social integration, which can make young people more vulnerable to the pressures and influences of social media. Additionally, younger individuals may have less developed coping skills and emotional regulation strategies, making them more prone to negative effects such as cyberbullying and social comparison [43, 44].

Gender disparities also play a significant role in shaping individuals' experiences with digital technology and its impact on mental health. Research suggests that women may be more likely to experience negative outcomes related to social media use, such as body image dissatisfaction and depression. This gender difference may be attributed to societal pressures and expectations surrounding appearance and social relationships, which can be amplified in online environments. Men, on the other hand, may be more susceptible to certain forms of online aggression and cyberbullying, which can contribute to feelings of anxiety and low self-esteem. Personality traits represent another important set of individual differences that moderate the relationship between social media use and mental health outcomes. For example, individuals high in neuroticism, characterized by tendencies towards negative emotions and emotional instability, may be more susceptible to the negative effects of social media, such as increased anxiety and depression. Similarly, individuals high in extraversion, who derive energy and fulfillment from social interactions, may be more likely to experience positive outcomes from social media use, such as enhanced social support and connectivity [45, 46].

Pre-existing mental health conditions represent a significant moderator of the relationship between social media use and mental health outcomes. Individuals with pre-existing anxiety, depression, or other mental health disorders may be more vulnerable to the negative effects of social media, as these platforms can exacerbate existing symptoms and amplify feelings of distress. Conversely, social media may also provide opportunities for individuals with mental health challenges to connect with supportive communities, access resources, and receive peer support. Socioeconomic status (SES) and cultural background also play a role in shaping individuals' experiences with digital technology and its impact on mental health. Individuals from lower socioeconomic backgrounds may have less access to resources and support networks, which can exacerbate feelings of social isolation and loneliness in digital environments. Additionally, cultural norms and values surrounding technology use, privacy, and social interaction may vary across different cultural groups, influencing how individuals engage with digital technology and navigate its effects on mental health [47, 48].

Educational attainment and digital literacy represent important moderators of the relationship between social media use and mental health outcomes. Individuals with higher levels of education and digital literacy may be better equipped to critically evaluate online content, manage privacy settings, and navigate digital environments in ways that promote positive mental health. Conversely, individuals with limited digital literacy or information literacy skills may be more susceptible to misinformation, online harassment, and other negative online experiences [48,49]. Individual differences and

moderators play a critical role in shaping how individuals experience and respond to digital technology, including social media use and its impact on mental health. Factors such as age, gender, personality traits, pre-existing mental health conditions, socioeconomic status, cultural background, educational attainment, and digital literacy can influence susceptibility to both positive and negative effects of digital technology. By understanding and addressing these individual differences and moderators, stakeholders can develop targeted interventions and strategies to promote positive outcomes and mitigate potential harm in the digital age [49, 50].

CONCLUSION

The relationship between social media use and mental health outcomes is complex and multifaceted, influenced by various individual, interpersonal, and contextual factors. While social media platforms offer unprecedented opportunities for connection,

self-expression, and information dissemination, they also pose risks to individuals' psychological well-being. Understanding the mechanisms through which social media influences mental health, as well as the factors that moderate these effects, is essential for developing targeted interventions and promoting healthier online behaviors. Moving forward, future research should prioritize longitudinal studies and experimental designs to establish causal relationships and identify effective strategies for mitigating potential harms associated with social media use. Additionally, efforts to promote digital literacy, resilience, and positive coping strategies are needed to empower individuals to navigate the online landscape safely and responsibly. By fostering a more nuanced understanding of the interplay between social media and mental health, researchers, policymakers, and practitioners can work together to create digital environments that support individuals' well-being and foster positive social connections.

REFERENCES

1. Braghieri L, Levy RE, Makarin A. Social media and mental health. *American Economic Review*. 2022;112(11):3660-3693.
2. Deepa M & Priya VK. Impact of social media on mental health of students. *International Journal of Scientific & Technology Research*. 2020;9(03).
3. Naslund JA, Bondre A, Torous J, Aschbrenner KA. Social Media and Mental Health: Benefits, Risks, and Opportunities for Research and Practice. *J Technol Behav Sci*. 2020;5(3):245-257.
4. Berryman C, Ferguson CJ, Negy C. Social Media Use and Mental Health among Young Adults. *Psychiatr Q*. 2018 Jun;89(2):307-314.
5. Coyne SM, Rogers AA, Zurcher JD, Stockdale L, Booth M. Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in human behavior*, 2020;104, 106160.

6. Pantic I. Online social networking and mental health. *Cyberpsychol Behav Soc Netw*. 2014 Oct;17(10):652-7.
7. O'Reilly M, Dogra N, Whiteman N, Hughes J, Eruyar S, Reilly P. Is social media bad for mental health and wellbeing? Exploring the perspectives of adolescents. *Clin Child Psychol Psychiatry*. 2018 Oct;23(4):601-613.
8. De Choudhury M. Role of social media in tackling challenges in mental health. In: *Proceedings of the 2nd international workshop on Socially-aware multimedia*. 2013;49-52.
9. Wongkoblap A, Vadillo MA, Curcin V. Researching Mental Health Disorders in the Era of Social Media: Systematic Review. *J Med Internet Res*. 2017 Jun 29;19(6):e228.
10. Bashir H & Bhat SA. Effects of social media on mental health: A review. *International Journal of Indian Psychology*, 2017;4(3), 125-131.
11. Sadagheyani HE & Tatari F. Investigating the role of social media on mental health. *Mental health and social inclusion*, 2021;25(1), 41-51.
12. Khalaf AM, Alubied AA, Khalaf AM, Rifaey AA. The Impact of Social Media on the Mental Health of Adolescents and Young Adults: A Systematic Review. *Cureus*. 2023 Aug 5;15(8).
13. Zsila Á, Reyes MES. Pros & cons: impacts of social media on mental health. *BMC Psychol*. 2023 Jul 6;11(1):201.
14. Alfiah F, Warohmah S, Wahin MFZZ, Annisa MN, Kurniawan A. Social impact of social media use intensity on mental health in the form of apatic attitude. *International Journal of Cyber and IT Service Management*. 2021;1(2), 226-232.
15. Verduyn P, Gugushvili N, Kross E. The impact of social network sites on mental health: distinguishing active from passive use. *World Psychiatry*. 2021 Feb;20(1):133-134.
16. Ruiz RM, Alfonso-Fuertes I, Vives SG. Impact of social media on self-esteem and body image among young adults. *European Psychiatry*. 2022;65(S1), S585-S585.
17. Chamsi FZ, Katir I, Korchi A, Belbachir S, Ouanass A. The impact of social media on self-esteem. *European Psychiatry*, 2022;5(S1), S551-S551.
18. Koronczai B, Demetrovics Z. The association between social media use and mental health among adolescents and young adults. *European Psychiatry*, 2022;65(S1), S126-S126.
19. Alfonso-Fuertes I, Alvarez-Mon MA, Sanchez Del Hoyo R, Ortega MA, Alvarez-Mon M, Molina-Ruiz RM. Time Spent on Instagram and Body Image, Self-esteem, and Physical Comparison Among Young Adults in Spain: Observational Study. *JMIR Form Res*. 2023 Apr 7;7.
20. Abrante D, Carballeira M. Self-Exposure on Instagram and BMI: Relations With Body Image Among Both Genders. *Eur J Psychol*. 2023 May 31;19(2):180-191.

21. Jiotsa B, Naccache B, Duval M, Rocher B, Grall-Bronnec M. Social Media Use and Body Image Disorders: Association between Frequency of Comparing One's Own Physical Appearance to That of People Being Followed on Social Media and Body Dissatisfaction and Drive for Thinness. *Int J Environ Res Public Health*. 2021 Mar 11;18(6):2880.
22. Legkauskas V, Kudlaitė U. Gender differences in links between daily use of Instagram and body dissatisfaction in a sample of young adults in Lithuania. *Psychological Topics*, 2022;31(3), 709-719.
23. Pedalino F, Camerini AL. Instagram Use and Body Dissatisfaction: The Mediating Role of Upward Social Comparison with Peers and Influencers among Young Females. *Int J Environ Res Public Health*. 2022 Jan 29;19(3):1543.
24. Revranche M, Biscond M, Husky MM. Lien entre usage des réseaux sociaux et image corporelle chez les adolescents : une revue systématique de la littérature [Investigating the relationship between social media use and body image among adolescents: A systematic review]. *Encephale*. 2022 Apr;48(2):206-218. French.
25. O'Day EB & Heimberg RG. Social media use, social anxiety, and loneliness: A systematic review. *Computers in Human Behavior Reports*, 2021;3, 100070.
26. Pittman M & Reich B. Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in human behavior*, 2016;62, 155-167.
27. Marttila E, Koivula A, Räsänen P. Does excessive social media use decrease subjective well-being? A longitudinal analysis of the relationship between problematic use, loneliness and life satisfaction. *Telematics and Informatics*, 2021;59, 101556.
28. Neto R, Golz N, Polega M. Social Media Use, Loneliness, and Academic Achievement: a Correlational Study with Urban High School Students. *Journal of Research in Education*, 2015;25(2), 28-37.
29. Hunt MG, Marx R, Lipson C, Young J. No more FOMO: Limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology*. 2018;37(10), 751-768.
30. Smith D, Leonis T, Anandavalli S. Belonging and loneliness in cyberspace: impacts of social media on adolescents' well-being. *Australian Journal of Psychology*. 2021;73(1), 12-23.
31. Ye S, Ho KK, Zerbe A. The effects of social media usage on loneliness and well-being: analysing friendship connections of Facebook, Twitter and Instagram. *Information Discovery and Delivery*, 2021;49(2), 136-150.
32. Thomas L, Orme E, Kerrigan F. Student loneliness: The role of social media through life transitions. *Computers & Education*, 2020;146, 103754.
33. Youssef L, Hallit R, Kheir N, Obeid S, Hallit S. Correction to: Social media use disorder and loneliness: any association between the two? Results of a cross-sectional study among Lebanese adults. *BMC Psychol*. 2020 Jul 8;8(1):1-7.

34. Harrison G & Lucassen M. Stress and anxiety in the digital age: The dark side of technology. *Open Learn*, 2019;1.
35. Hoge E, Bickham D, Cantor J. Digital Media, Anxiety, and Depression in Children. *Pediatrics*. 2017 Nov;140(Suppl 2):S76-S80.
36. Scott DA, Valley B, Simecka BA. Mental health concerns in the digital age. *International journal of mental health and addiction*, 2017;15, 604-613.
37. Blackburn AM, Goetter EM. Treatment of anxiety disorders in the digital age. *Clinical handbook of anxiety disorders: From theory to practice*, 2020;297-313.
38. Kamalou, S, Shaughnessy K, Moscovitch DA. Social anxiety in the digital age: The measurement and sequelae of online safety-seeking. *Computers in Human Behavior*, 2019;90, 10-17..
39. Odgers CL, Jensen MR. Annual Research Review: Adolescent mental health in the digital age: facts, fears, and future directions. *J Child Psychol Psychiatry*. 2020 Mar;61(3):336-348.
40. Harrison V, Moore D, Lazard L. Supporting perinatal anxiety in the digital age; a qualitative exploration of stressors and support strategies. *BMC Pregnancy Childbirth*. 2020 Jun 17;20(1):363.
41. Riadi I, Kervin L, Dhillon S, Teo K, Churchill R, Card KG, Sixsmith A, Moreno S, Fortuna KL, Torous J, Cosco TD. Digital interventions for depression and anxiety in older adults: a systematic review of randomised controlled trials. *Lancet Healthy Longev*. 2022 Aug;3(8):e558-e571.
42. Garrido S, Millington C, Cheers D, Boydell K, Schubert E, Meade T, Nguyen QV. What Works and What Doesn't Work? A Systematic Review of Digital Mental Health Interventions for Depression and Anxiety in Young People. *Front Psychiatry*. 2019 Nov 13;10:759.
43. Yu TK, Lin ML, Liao YK. Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in human behavior*, 2017;71, 196-208.
44. Tarhini A, Hone K, Liu X. The effects of individual differences on e-learning users' behaviour in developing countries: A structural equation model. *Computers in human behavior*, 2014;41, 153-163.
45. Siddiq F, Scherer R. The relation between teachers' emphasis on the development of students' digital information and communication skills and computer self-efficacy: the moderating roles of age and gender. *Large-scale Assessments in Education*, 2016;4, 1-21.
46. Porkodi S, Saranya, R. Empirical study on the role of passion, individual differences, and innovativeness between entrepreneurship education in higher education institutions and entrepreneurial intention: A moderated mediating model. *Review of Education*, 2023;11(2), e3412.
47. Boskovic A. Employee autonomy and engagement in the digital age: The moderating role of remote working. *Ekonomski Horizonti*, 2021;23 (3), 231-246.

48. Regts G, Molleman E. The moderating influence of personality on individual outcomes of social networks. *Journal of Occupational and Organizational Psychology*, 2016;89(3), 656-682.
49. Liu QQ, Zhou ZK, Yang XJ, Niu GF, Tian Y, Fan CY. Upward social comparison on social network sites and depressive symptoms: A moderated mediation model of self-esteem and optimism. *Personality and Individual Differences*, 2017;113, 223-228.
50. Schwartz CE, Borowiec K, Li Y, Rapkin BD. Correction to: Individual differences in the long-term impact of the pandemic: moderators of COVID-related hardship, worry, and social support. *Qual Life Res.* 2024 Apr;33(4):927-939.