

The influence of social media on psychological well-being: Examination and outlook



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Abstract The article is dedicated to assessing the impact of social networks on the mental health of the population. Social networks have gained global popularity and are integral to modern life. Currently, social networks are platforms for personal development, communication skills, and socialization, searching for like-minded individuals and new friends, maintaining personal blogs, distance learning, and work. This study aims to analyze the impact of social networks on the mental health of the population and assess the possible perspectives of this influence. Theoretical methods were used to achieve the set goal: studying, analyzing, and systematizing scientific literature data. Currently, approximately 60% of the world's population uses social networks, with approximately 40% of users using them not only for entertainment and relaxation but also for work and education, which determines their socioeconomic significance. According to statistics, the most popular social networks worldwide are Facebook, YouTube, WhatsApp, Instagram, WeChat, and TikTok. In addition, most social media users are registered in one or several of them. On the one hand, social networks can help people communicate regardless of distance, acquire new knowledge, meet like-minded individuals, exchange ideas, and increase social support. On the other hand, their excessive use is associated with the development of addiction, low self-esteem, levels of anxiety and depression, and deterioration of social and physical health. These problems are particularly acute with increasing time spent in the virtual world. Therefore, in recent years, there has been increased interest in studying the impact of social networks on the health of the population as a whole and persons in particular and in developing and implementing effective methods to prevent the negative aspects of their use. This is a promising direction for further research.

Keywords: social media, mental health, communication, well-being, social media impact, virtual reality, psychology

1. Introduction

The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being beyond the point of being free from disease or infirmity. Although physical health has received much attention throughout human history, mental health has long been an unresolved issue. Moreover, the presence of mental disorders in a person was identified by the possession of a demon or something otherworldly, and such a person was subject to exile or even execution.

Since the beginning of the last century, interest in mental health has significantly increased. Research findings on the functioning of the nervous system, mediating interactions in the brain, and the mechanisms of higher nervous activity have largely facilitated these findings.

Mental health encompasses the vast landscape of our emotions, thoughts, and behaviors that help us to perceive the world, process information, and handle life challenges. It comprises our ability to think, feel, and behave in a manner that enables us to perform effectively in our work environments, our personal lives, and in society at large. A mentally healthy person perceives life in realistic ways, can adapt to change, carry out professional and personal responsibilities, and develop rational strategies to solve problems. Additionally, such people have the intellectual ability to learn and use information effectively and strive for continued growth (Khmara, 2022).

Mental disorders present as a wide spectrum of conditions, from common psychological difficulties (for example, fatigue) to serious mental illnesses. In recent decades, mental disorders have become more common due to the significant increase in the number of people suffering from them (Zhang et al., 2022).



Despite a certain understanding of the functioning of the human psyche at the biochemical level, the study of its formation and changes under the influence of various factors remains relevant.

2. Literature Review

The mental health of a person depends on biological, social, and psychological factors, necessitating an integrated approach to its study. It is fundamental for both collective and individual human capacities to think, experience emotions, interact with others, earn a living, and find joy in life (WHO, 2018).

According to the World Health Organization (WHO), mental health is defined as a state of well-being that allows people to realize their potential, cope with life stresses, work productively and fruitfully, and contribute to their community (Public Health Center of the MOH of Ukraine, 2023; Perepelytsia, 2021).

The main components of mental health, as defined by the WHO, include the following:

- Stability and identity of physical and mental "self" and their awareness;
- The consistency and uniformity of experiences in similar situations;
- A critical attitude toward oneself and one's activities;
- The correspondence and adequacy of mental reactions to various stimuli;
- The ability to manage one's own behavior per societal norms;
- Planning one's own activities and life and its realization;
- Mental flexibility – changing behavior depending on life circumstances (Public Health Center of the MOH of Ukraine, 2023).

Mental health is determined not only by biological factors but also by economic, psychological, and social factors and depends on the surrounding environment. The main factors associated with deteriorating mental health are divided into endogenous (determined by genetic factors, metabolic disorders) and exogenous (due to alcohol consumption, drug use, brain injury due to trauma, infections, circulatory disorders, etc.). Since mental health is linked to social factors, scholars' attention in recent years has drawn to "classic" means of communication and those associated with digital technologies, primarily social networks.

Sociologist James Barnes first introduced the term "social networks" in 1954. It defines relationships among members of small, closed groups. Today, due to the emergence and significant spread of the global Internet network, social media have transformed into complex technosocial entities without any local affiliation (Nagorna, 2023; Dutchak et al., 2020).

A social network is a website where people, after registering and creating an account (personal profile), can post their own information to communicate with other users, exchange files (photos, videos, etc.), advertise certain products or personal brands, conduct entrepreneurial activities, etc. It is such an effective and popular interaction mechanism between people who since the creation of the first social network, SixDegrees.com, in 1997, their number has exceeded one hundred and continues to grow.

The main reasons for interest in social networks and their popularity can be divided into superficial (e.g., following trends, desire to be modern, and willingness to expand the boundaries of communication) and deep (e.g., the possibility of escaping from reality, forming personal space, and searching for or not accepting one's own "self") (Lebedynets-Rhoda, 2020).

On the one hand, social networks can help people communicate regardless of distance, acquire new knowledge, meet like-minded individuals, exchange ideas, and increase social support. On the other hand, their excessive use is associated with addiction, decreased self-esteem, high levels of anxiety and depression, and deterioration of social and physical health (Mind Scope, 2023; HoldYou, 2023; Sviezhentseva, 2021).

According to data from the bloggersideas.com platform, there are 5.04 billion social media users worldwide. The average time spent on social media is 2 hours 25 minutes/145 minutes per day (Bloggersideas, 2024). Thus, browsing social media is increasingly becoming part of users' daily routines, which will undoubtedly have an impact on the mental health of people and society as a whole.

This study aimed to analyze the impact of social media on the mental health of the population and assess the possible consequences of such impacts.

3. Methods

The following research methods were employed to achieve the goal of this study:

- A theoretical method was used to study and analyze the scientific literature;
- An inductive method was employed to systematize the research data;
- deductive method was applied to summarize the obtained results.

4. Results and discussion

A person is a social being. Therefore, communication and contact with other people are necessary for normal functioning. In our opinion, this is the main reason for the popularity and wide use of social networks. Social networks "erase borders" and level distances, allowing communication with family/friends/colleagues worldwide. They expand opportunities for self-expression and creativity and help people search for like-minded people and support in difficult situations.

It is sufficient to create an account or a personal profile to use social networks. The information in this profile cannot be verified in any way. On the one hand, this allows self-presentation to be controlled and provides a certain level of anonymity in communication, which can make communication easy and informal. On the other hand, the absence of physical presence during communication limits its nonverbal nature. Such anonymity can lead to the spread of blatantly false information and destabilization of social and political situations. Moreover, users can create their "perfect hero" and live their "perfect" virtual life instead of a real life.

As mentioned earlier, the total number of social media users worldwide is currently 5.04 billion people. This figure is approximately 60% of the world's population, with 63% of the qualified audience over the age of 13 being active users. Notably, approximately 40% of users use social networks for entertainment, leisure, work, and education. The latter determines their socioeconomic significance (Bloggersideas, 2024).

The rating of registered users of social networks in the world is as follows: the largest number is registered on Facebook – over 2.9 billion people, followed by YouTube – over 2.5 billion, WhatsApp – approximately 2 billion, Instagram – almost 1.4 billion, WeChat – 1.3 billion, and TikTok – 1 billion users (Figure 1).

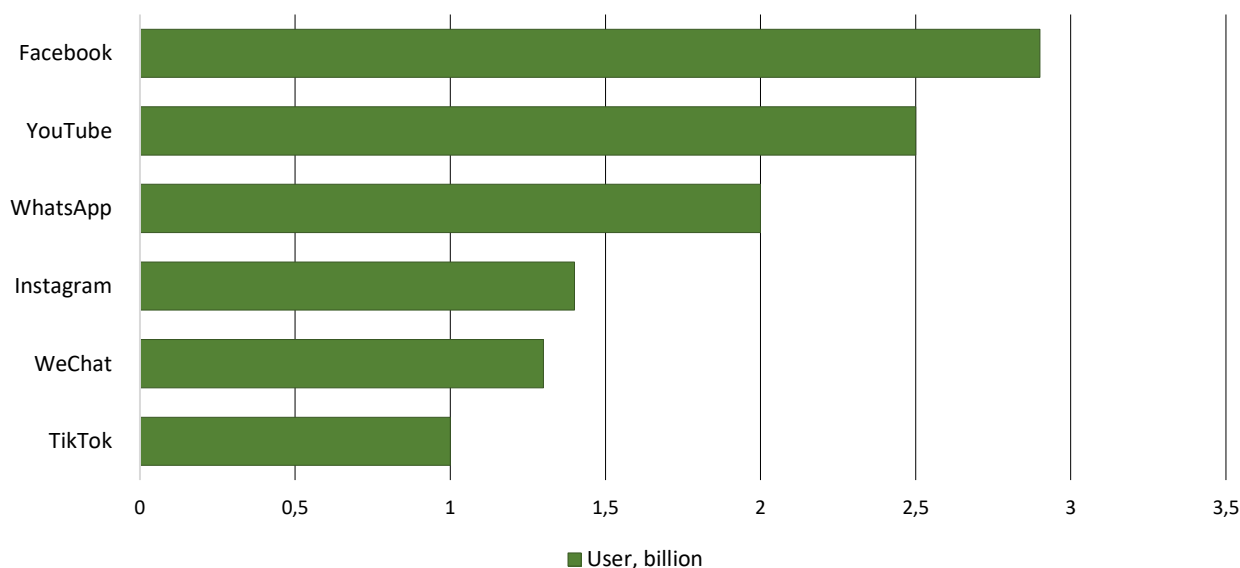


Figure 1 The number of social media users around the world. Source: based on Khmara (2022)

With social networks, people stay in touch with the world. It helps to maintain relationships, especially at a distance, thereby reducing feelings of loneliness. This is especially relevant for people who find themselves in a new social group due to a change of residence, study, or work. Moreover, social media helps them feel the support of their loved ones, facilitates adaptation to new living conditions, establishes friendly contacts with others faster, and keeps them informed about all local events, whether university or corporate events, themed holidays, festivals, etc.

In addition, social networks have long ceased to be just a platform for entertainment. They are powerful information resources with access to useful educational content, courses, and training, the latest news from anywhere in the world, and professional information. This was especially acute and relevant at the beginning of the COVID-19 pandemic, when significant restrictions on free mobility and, consequently, communication were imposed in most countries.

During the COVID-19 pandemic, many global corporations and almost all educational institutions at different levels in most countries switched to online work and study (Bakhov et al., 2021). Business meetings, organizational meetings for work planning, lectures, training sessions, and contacts with colleagues or teachers were carried out using media platforms and social networks. Such experience has also become useful and continues to be used even now during the period of martial law in Ukraine (Kryvenko, 2022).

Social media combines photo, video, and textual information, thereby using different channels of perception, which improves the process of learning and assimilating information. The absence of borders makes it easier to find the information people need and to obtain and use the most up-to-date data regardless of their physical location. The availability of a large amount of information encourages users to analyze, systematize, and develop critical thinking. In addition, it can be helpful in self-organization and business planning, budgeting, etc. (MozOk, 2022).

Sharing photos and videos from vacations and celebrations and demonstrating personal achievements help users improve their mood and quality of life, as well as their further self-development and professional growth. In addition, social networks are platforms where people can turn to experts in various fields and obtain the required help, advice, and assistance.

For people who live in remote areas, have limited independence, or belong to a marginalized group, social media allows them to maintain social connections and find like-minded people and people in similar life situations. In addition, social media communities, support groups, and forums can provide support in difficult life situations, help solve problems, and share experiences and advice. For example, in 2017, the hashtag #metoo made social media a place where society learned about the extent of the problem of sexual harassment (Sviezhentseva, 2021).

On social media, people can freely express their opinions and share their impressions, ideas, and creativity, which contributes to their self-realization and self-expression. As a result of social media, many people have turned their hobbies from creativity and a way to relieve themselves psychologically into their own business, which brings them financial stability.

However, in addition to the abovementioned positive aspects, social networks also have negative aspects, which we will discuss further.

A frequent and likely the most severe negative impact of social media on mental health is the formation of addiction. It works similarly to alcohol or drug addiction. After uploading a photo or post to a social network and receiving a positive result in the form of likes and comments, the brain releases the neurotransmitter dopamine. As a result, it causes feelings of happiness and euphoria and a desire to repeat the process again. This is exactly what makes users spend increasingly more time on social networks, constantly checking them. In 2013, a group of researchers led by Kross E. demonstrated an inverse relationship between the duration of daily Facebook use and life satisfaction (Kross et al., 2013).

Social media is a powerful agent of the secondary social and psychological adaptation of a person not only in a network society but also in a real society. Social networks and their content serve as indicators of the development of society: the type of interpersonal relationships, leisure activities, changes in the lifestyle of the population, their usual information channels, and the development of new models of interaction with the environment (Tuluk, 2022).

A study by Zhang M. et al. (2022) showed that the use of social media has a curvilinear relationship with feelings of well-being. While moderate use of social media is linked to higher levels of well-being, low and high levels of social media use are related to lower levels of well-being (Zhang et al., 2022). In 2019, Scott H. et al. analyzed data from more than 11,000 adolescents and reported that being on social media for more than 5 hours a day was linked to sleep disorders, memory impairment, and learning disabilities (Scott, Biello, & Woods, 2019).

Social networks can distort reality, as users often highlight only their own achievements without showing the efforts they have made. As a result, other users may feel insecure and envious, have inadequate perceptions of their own lives, and experience depression (Shubina, 2023; Sviezhentseva, 2021). In 2016, Lin L. et al. showed a direct and linear relationship between the duration of social media use and indicators of anxiety and depression (Lin et al., 2016). In 2022, Lambert J. et al. reported a significant decrease in anxiety and depression and an improvement in overall well-being after a one-week break from social media use (Lambert et al., 2022).

By uploading only the most attractive images (often preedited and upgraded) to their profiles and removing less attractive ones, social media users often portray some type of idealized version of themselves without any of the body or appearance defects that can be seen in real life. In this way, the audience receives a kind of "filtered," unrepresentative collection of images (Khmara, 2022). In addition, social media algorithms offer such channels that users visit most often, creating an echo effect. Users constantly compare themselves to the content in their news feed, perceiving the whole world as such. However, in reality, this is a vicious cycle in which the algorithm cannot be adjusted (Prendergast, 2020).

It seems that social media greatly expands opportunities for communication and eliminates geographical restrictions. However, extensive use of social media can increase social isolation and loneliness, primarily due to a lack of live communication, reduced nonverbal interaction, and emotional inertia.

According to Sun L. (2023), the use of social media by university students is negatively correlated with well-being and positively correlated with symptoms of social anxiety and loneliness (Sun, 2023). A study by Hudimova A.H. revealed a feeling of loneliness among adolescents. This feeling was conditioned by a sense of psychological separation and personal identity due to the ratio of identification and separation in connection with virtual communication (Hudimova, 2020).

Since social media relations are predominantly social and based on friendship, cooperation, and information exchange, social media should be considered an essential tool for manipulation and suggestions. Distortion and misrepresentation of information, correction of certain opinions and judgments, highlighting events from a certain angle, organizing social protests, mixing opinions, and intimidation – this is an incomplete list of manipulative methods that internal and external aggressors can use to achieve their own goals. Social media is a place of propaganda, a battlefield in the information war that accompanies any local or military conflict (Novikova, 2022).

Social media can increase feelings of fear of missing out (the so-called FOMO effect). It is characterized by an obsessive fear of missing an event or a profitable opportunity. Moreover, it is impossible to overcome the desire to stay up-to-date with friends and acquaintances (uk.wikipedia.org).

The signs of having a FOMO effect include the following:

- Frequent fear of missing something important;
- Frequent use of comparative phrases such as "everyone but me";
- A desire and effort to be present at all forms of social communication (all parties, concerts, etc.);

- An obsessive desire to always be liked by others, to accept praise, and to be available for communication;
- There is a need to update personal social media feeds regularly.

The FOMO effect is directly related to another neologism – "phubbing" (from English: phone – "telephone, smartphone" and snubbing – "dismissive attitude"). It describes the habit of constantly distracting oneself with a phone while communicating with another person in real life. For example, a person can be distracted during meetings, parties, gatherings, at the dinner table, and other everyday activities (Cambridge dictionary).

When describing the influence of social networks on a person's mental health, we cannot fail to mention cyberbullying and cyber grooming. Cyberbullying is any form of offensive behavior, intimidation, harassment, or humiliation of a person over the Internet (UNICEF Ukraine). Various forms of cyberbullying may include insults, threats, "character assassination," spreading rumors, publicly disclosing personal information, using a fake identity, social isolation, blackmail, persecution, and open threats of physical harm (Khmara, 2022).

Cyber grooming or online grooming involves adults establishing friendly relationships with minors using digital technologies to harmfully influence them, usually with the aim of further sexual exploitation or blackmail. The most common grooming scenario unfolds in personal correspondence between an adult and a child, where typically, the adult poses as a person from the teenager's age group, gains their trust, and then, when the teenager feels emotionally close to the interlocutor, initiates correspondence on intimate topics, exchanges photos in a revealing manner, extracts confidential information, encourages unlawful actions, or resorts to blackmail in exchange for not disclosing information, etc. (Lebedynets-Rhoda, 2020).

Despite the rules and privacy settings on every social network, personal information and posted media can become publicly accessible and used without permission. It violates the sense of privacy and security and affects self-esteem. In addition, such information can be used to create fake pages and profiles for fraudulent activities, spreading false information and calls to certain actions and deeds that are often unlawful (Lebedynets-Rhoda, 2020).

In conclusion, social networks are an integral part of modern life and, if used correctly, can be more beneficial than potentially harmful. For this reason, in recent years, interest has increased not only in researching the impact of social networks on the health of the population in general and people in particular but also in developing and implementing effective methods to prevent the negative aspects of their use.

Currently, the following methods are recommended to accomplish this goal (Mind Scope, 2023; Koptev, 2023; MozOk, 2022):

- Setting limits (time, number of accounts, frequency of visits);
- Setting boundaries and setting specific goals for visiting social networks (e.g., participating in a workshop or online learning);
- Having "social media-free" days;
- Viewing positive content (pages or topics that improve people's mood and help them grow);
- Seek support both online and in real life;
- Diversification of real life.

5. Conclusion

Social media is an integral part of modern life since people use it in almost all areas of their lives. They are utilized to communicate with family and friends, exchange information, run a business, receive news, study, etc.

Facebook, YouTube, WhatsApp, Instagram, WeChat, and TikTok are the most popular social media platforms in the world. In addition, most social media users are registered not in one but in several of them.

Social media have both positive and negative effects on the mental health of people. The positive aspects of the impact include the ability to keep in touch with family and friends regardless of distance, greater access to information and knowledge, the ability to express oneself, exchange ideas, and the absence of geographical restrictions to find like-minded people and obtain support in difficult situations.

The negative aspects of social media influence include inadequate perception of yourself, your own life or appearance, comparison with others and their "ideal life," cyberbullying, addiction, and social isolation due to a decrease in live communication in favor of virtual communication.

The development of effective means of "information hygiene" while using social media to prevent negative impacts on mental health is a promising area for further research.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

Funding

This research did not receive any financial support.

References

- Bakhov, I., Opolska, N., Bogus, M., Anishchenko, V., Biryukova, Y. (2021). Emergency distance education in the conditions of COVID-19 pandemic: Experience of Ukrainian universities. *Education Sciences*, 11(7), 364.
- Dutchak, S., Opolska, N., Shchokin, R., Durman, O., Shevtsiv, M. (2020). International aspects of legal regulation of information relations in the global internet network. *Journal of Legal Ethical and Regulatory Issues*, 23(3), 1-7.
- Fear of missing out. (2024). *Wikipedia*. https://en.wikipedia.org/wiki/Fear_of_missing_out
- Hudimova, A. H. (2020). Specificity of the social media's impact on adolescents' psychological well-being. *Habitus*, 12(2), 98-102. <https://doi.org/10.32843/2663-5208.2020.12-2.16>
- Khmara, A. B. (2022). Spozhyvannia kontentu sotsialnykh media yak faktor formuvannia obrazu tila. Chernivtsi National University named after Yury Fedkovich, Chernivtsi. 63 p.
- Kiberbulinh – shcho tse ta yak tse zupynyty? *UNICEF Ukraine*. <https://www.unicef.org/ukraine/cyberbullying>
- Koptev, O. (2023). Vplyv sotsialnykh merezh na nashe zhyttia ta vidnosyny. <https://opentv.media/ua/vplyv-sotsialnih-merezh-na-nashe-zhyttia-ta-vidnosini>
- 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). <https://doi.org/10.1371/journal.pone.0069841>
- Kryvenko, A. V. (2022). Vplyv sotsialnykh merezh na psykholohichne blahopoluchchia studentiv-psykholohiv. Petro Mohyla Black Sea State University, Mykolayiv. 87 p.
- Lambert, J., Barnstable, G., Minter, E., Cooper, J., & McEwan, D. (2022). Taking a One-Week Break from Social Media Improves Well-Being, Depression, and Anxiety: A Randomized Controlled Trial. *Cyberpsychology, behavior, and social networking*, 25(5), 287-293. <https://doi.org/10.1089/cyber.2021.0324>
- Lebedynets-Rhoda, O. S. (2020). The conceptual and terminological field for the problem of adolescents' excessive involvement into social networking. *Psychological Journal*, 6(9), 19-28. <https://apsijournal.com/index.php/psyjournal/article/view/1052>
- Lin, L. Y., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., ... Primack, B. A. (2016). Association between social media use and depression among U.S. young adults. *Depression and Anxiety*, 33(4), 323-331. <https://pubmed.ncbi.nlm.nih.gov/26783723/>
- Meaning of "phubbing" in English. *Cambridge Dictionary*. <https://dictionary.cambridge.org/dictionary/english/phubbing>
- Nagorna, T. Y. (2023). Individual and psychological personal characteristics of users of social networks. Polis National University, Zhytomyr. 82 p.
- Novikova, Z. (2022). Manipulative ways of influencing a person on social media. *Young Scientist*, 9(109), 48-53. <https://doi.org/10.32839/2304-5809/2022-9-109-11>
- Perepelytsia, T. I. (2021). Zviazok mizh vykorystanniam saitiv sotsialnykh merezh ta nehatyvnyim stanom psykhihnoho zdorovia studentiv (na prykladi saituv sotsialnoi merezhi Instagram). National University of Kyiv-Mohyla Academy, Kyiv. 73 p.
- Prendergast, C. (2020). Yak sotsialni merezhi vplyvaiut na nashe psykhihne zdorovia. *Vogue Ukraine*. <https://vogue.ua/article/culture/lifestyle/the-social-dilemma-deystvitelno-li-socialnye-seti-vliayut-na-psihihieskoe-zdorove-42314.html>
- Scott, H., Biello, S. M., & Woods, H. C. (2019). Social Media use and adolescent sleep patterns: Cross-sectional findings from the UK millennium cohort study. *BMJ Open*, 9(9). <https://doi.org/10.1136/bmjopen-2019-031161>
- Shalaumova, V. (2023). Sotsialni merezhi vplyvaiut na psykhihne zdorovia liudei. "Vidlunnia" Newspaper. <http://exo.net.ua/novosti-lenty/18552-2023-04-13-16-05-40>
- Shcho vazhlyvo znaty pro psykhihne zdorovia? (2023). *Public Health Center of the MOH of Ukraine*. <https://phc.org.ua/news/scho-vazhlyvo-znati-pro-psykhihne-zdorovya>
- Shubina, A. (2023). Nehatyvnyi vplyv sotsmerez na psykhihu: rezultaty doslidzhennia. *HUBZ Inform*. <https://hubz.ua/zdorove-zhyttia/psychologiya/yak-zmenshyty-negatyvnyj-vplyv-sotsmerez-na-psyhiku/>
- Sun, L. (2023). Social media usage and students' social anxiety, loneliness and well-being: does digital mindfulness-based intervention effectively work? *BMC Psychology*, 11(1). <https://doi.org/10.1186/s40359-023-01398-7>
- Sviezhentseva, I. (2021). Tsyfrova zalezhnist: shcho vidomo pro vplyv sotsmerez na psykhihne zdorovia. *Suspilne*. <https://suspilne.media/169931-cifrova-zalezhnist-so-vidomo-pro-vplyv-socmerez-na-psihihne-zdorova/>
- Thompson, A. (2024). Social Network Usage Stats 2024: How Many People Would Be Using Social Media? *Bloggersideas*. <https://www.bloggersideas.com/social-network-usage-stats/>
- Tuluk, Ye. V. (2022). Vplyv virtualnoi realnosti na adaptatsiiu pidlitkiv. National Aviation University, Kyiv. 66 p.
- Vplyv sotsialnykh merezh na psykhihne zdorovia (2023). *HoldYou*. <https://holdyou.net/news/sotsialnykh-merezh>
- Mental health: strengthening our response (2018). *World Health Organization*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- Yak sotsialni merezhi vplyvaiut na psykhihu ditei ta pidlitkiv (2022). *MozOk*. <https://mozok.ua/anxietydisorder/article/3795-yak-sotcaln-merezh-vplyvaiut-na-psihihu-dtej-ta-pdltkv>
- Zhang, M., Sun, X., Qin, X., Ren, X., Wen, C., Xie, F., ... Dai, Q. (2022). Problematic utilization of online social networking site in Chinese college students: prediction of personality and dynamic mediators: Prediction of personality and dynamic mediators. *Current Psychology*, 42(24), 21031-21047. doi:10.1007/s12144-022-03150-7
- Zvorushlyvyi Sotsmedia: Vplyv na psykhihne zdorovia (2023). *Mind Scope*. <https://mindscope.biz.ua/zvorushlyvyj-socmedia-vplyv-na-psykhihne-zdorovya/>

