



Does Social Media Impact on Mental Health and Wellbeing of University Students- A Qualitative Study

Farzana Akter

Lecturer, Southeast Business School,
Southeast University, Dhaka, Bangladesh
Email: farzana.hrm@gmail.com

Abstract

This research is to investigate how social media usage affects the mental health of university students by conducting in-depth interviews with participants. The study is qualitative in nature and focuses on nine themes, including mental health & social media, self-perception & personal relationships, fear of missing out, social media addiction and physical health, self-confidence, social media's influence on decision-making, selfishness and suicidal thoughts, privacy and security, and positive influences of social media. The findings of the study suggest a strong link between social media usage and the mental health of university students.

Keywords: Social Media, SNS, Qualitative Study, FOMO, Social Media Addiction

1.0 Introduction

In an era where digital technology permeates almost every aspect of our lives, social media has emerged as a defining force in modern communication and culture. From connecting with distant friends and family members to keeping abreast of current events and popular trends, social media platforms such as Facebook, Twitter, Instagram, and TikTok have become ubiquitous in their reach and influence. The impact of social media, however, extends far beyond mere convenience and entertainment. As a powerful tool for shaping public discourse and collective identity, social media has fundamentally altered the ways in which we interact with each other, understand the world around us, and construct our own sense of self. Yet, despite its many benefits, the rise of social media has also generated a host of pressing concerns related to issues such as privacy, security, and the manipulation of information. As such, gaining a nuanced understanding of the complexities of social media is increasingly critical for individuals, businesses, and society as a whole. While social media can be a useful tool for maintaining social connections and staying informed, there is growing concern about its potential impact on mental health. Studies have found that excessive social media use can contribute to a range of negative outcomes, including increased feelings of anxiety, depression, and loneliness. The comparison and competition with others on social media, as well as the exposure to negative news and images, can contribute to negative self-evaluation and worsened mood. On the other hand, social media can also provide access to mental health resources and supportive communities, especially for individuals who might not otherwise have access to these resources. Overall, the relationship between social media and mental health is complex, with both positive and negative effects, and it is essential for individuals to maintain awareness of their social media use and seek out positive interactions while minimizing negative ones.

Numerous researches have shown the effects of social media usage and its impact on individual's life. Those researchers have found significant involvement of SNS in our day-to-day life including our professional and educational life. Thus, the impact of SNS is overwhelming and undetachable.

Furthermore, this increasing amount of usage of SNS is taking a toll on individual's mental and physical health. There are numerous valuable researches on this issue but in Bangladesh's



perspective there are little to no articles which has shown the impact of SNS on university students mental health.

Therefore, this research aims to delve into the multifaceted nature of social media, tracing its historical roots, examining its present-day influence, and exploring the impact of uses of social media on student's mental health.

2.0 Literature Review

2.1 Social Media and its uses

According to Carr and Hayes (2015), social media provides users with opportunities to engage in participatory, collaborative, and interpersonal activities on the internet. Caplan and Purser (2019) state that social media allows users to express their thoughts and opinions, form new online communities, and seek emotional support. Social media platforms are increasingly recognized for their potential in helping individuals seek support and connect with peers who share similar experiences (Webber and Moors, 2015; Perez-Sabater, 2021).

Developers continuously modify and adapt social media features, leading to perceived overlaps between distinct types of social media. However, when distinguishing between different categories of social media, several types include social networking sites (such as Facebook), where users can create a personal profile and interact with others, video sharing platforms (such as TikTok and YouTube), and image sharing platforms (such as Instagram). These platforms allow users to view content uploaded by others, search for specific content, create a personal profile, and generate and share their own content. These platforms can serve various purposes, such as providing information, entertainment, or a means of creative expression.

In addition to social networking, video sharing, and image sharing platforms, social media encompasses blogging sites where users can create a digital journal or follow others' blogs. Social media also includes microblogs (such as Twitter), which allow users to create a profile and connect with others for news or entertainment within a limited number of characters. Another type of social media is wikis (such as Wikipedia), which involve user-generated and monitored informational pages.

Parmar (2017) noted that young people in the 21st century spend an average of 12-15 hours per day on various social devices, using platforms such as WhatsApp, YouTube, Facebook, Instagram, and Twitter. The number of social media users continues to increase, with billions of people using platforms such as Facebook, Instagram, and Messenger. However, the widespread use of social media has also created risks, such as the potential for unknown individuals to access users' personal information. This indicates a severe threat to the mental health of young people, as the negative effects of excessive social media use can be significant.

According to 2019 statistics reported by Felix Richter, over 2.7 billion individuals utilized Facebook, Instagram, or Messenger on a monthly basis, and over 2.1 billion used at least one of these platforms daily. Facebook was the most visited site, with more than 1 billion active users, but young users may not consider the risks associated with sharing personal information with unknown friends who could potentially hack their data. Additionally, there were almost 1 billion active users on YouTube, over 4 million on WhatsApp and Instagram, and over 3 million on Twitter. However, the increasing number of social media users poses a serious risk to the mental health of young people, with dangerous social



media usage being strongly and independently linked to increased symptoms of depression, as reported by Shensa et al. (2017).

2.2 Young Adult's Mental Health & Well Being

The term "young adult" typically refers to individuals between the ages of 18 and 29 years, although it has also been occasionally defined as those between 18 and 34 years old. And this study focuses on university students who are actually covering the large portion of young adults. According to Grant and Potenza (2009), many serious mental illnesses develop and peak during young adulthood, a period characterized by numerous transitions, identity development, and personality influences. Michaeli et al. (2019) suggest that, during this time of continued brain development, young adults require support from others as they navigate the transition to more independent post-secondary learning environments, increase risk-taking behaviors, and often experience poor sleep and eating habits. More research is necessary to determine how friends, family members, services, and social workers can provide effective and tailored support to promote the social and emotional well-being of young adults (Cunningham and Duffy, 2019).

According to Barrense-Dias et al. (2019), social media is the worst platform for young people due to its association with cyberbullying and trolling, which poses a risk to the mental health of children. Meanwhile, Williams and Teasdale (2018) found that individuals who excessively use social media may be susceptible to mental health issues. Various studies have raised concerns about the negative impact of social media on mental health. The World Health Organization (2017) has highlighted the potential dangers associated with long-term social media use, as well as the potential for future issues at a societal level. Pater and Mynatt (2017) have suggested that social media can contribute to aggressive and dangerous behavior, particularly among young people.

Shensa et al. (2017) have found a strong and explicit connection between dangerous online activities and increased symptoms of depression. According to Thornicroft et al. (2016), social media is important for the emotional well-being of young people, but some have speculated that it also poses a significant risk and danger to their mental health. This is because social networking sites are often used for cyberbullying, which can have negative effects on the self-esteem and self-confidence of victims. While there are some small positive effects of social media among young people, such as changing the way they communicate and socialize, there are also risks associated with spending too much time on these platforms. Len-Ríos et al. (2016) have cautioned that regular use of social media can have a serious impact on the mental health of teenagers, especially when it comes to social networking activities. Overall, it is clear that social media can have both positive and negative effects on the mental health of young people, and it is important for individuals to use these platforms in a responsible and healthy way.

Gipson et al. (2015) state that while young people care about their mental health and emotional well-being, they often lack information about how to maintain it.

2.3 Young Adult's Mental Health Anxiety & Depression

According to Patel et al. (2016), the use of social media is causing problems such as anxiety, depression, and eating disorders. This issue is particularly difficult for younger individuals who spend a significant amount of time scrolling through social media applications and gaining nothing in return, which is a significant risk to their mental health. Excessive use of social networking sites (SNS) can lead to increased dissatisfaction with life, depression and anxiety thus negatively impacting mental health (Woods and Scott, 2016). Lin et al. (2016) found that social media use is expressively



connected with increased depression. On the other hand, Townsend et al. (2016) argue that social media creates barriers to face-to-face communication, resulting in people living in isolation and increasing the likelihood of stress, grief, and self-doubt.

Zhang et al. (2015) suggest that social media can facilitate communication and social interaction. Creeks (2015) found that young people who use social media more often are more likely to experience trouble, unhappiness, and boredom. Amedie (2015) states that social media causes anxiety and depression for young people, as they perceive others as happier and more successful, which can result in mental health issues. Similarly, Clarke et. el. (2015) suggest that social media enhances young people's emotions.

Studies have linked computer use and television viewing to symptoms of anxiety and depression, as reported by de Wit et al. (2011). In particular, Facebook usage has been associated with depression and loneliness among students, as noted by O'Dell (2011) and the concept of "Facebook Depression" was developed by O'Keeffe, Clarke-Pearson, and Council on Communications and Media (2011) to describe the interrelationship between spending excessive time on social media and developing depressive symptoms. According to Moreno et al. (2011a), Facebook posts may indicate the presence of despair symptoms. Depression is a common mental health issue affecting people in both developed and low-income countries, with major depression impacting around 16% of the population at least once in their lives, as reported by Lee et al. (2010). Depression is the most commonly reported mental health issue in student populations (Burnsed, 2010) and is characterized by feelings of distress, restlessness, and disruption of daily life, and in severe cases, may lead to suicide if left untreated (McCall, 2007).

2.4 Social Media and its positive sides

Germann-Molz and Paris (2015) suggest, young people check social media due to the modern technology that empowers them, and they use it to develop skills, connect with peers, and interact with their families, thereby strengthening their mental health.

Several research studies have shown that social support has the potential to mitigate hopelessness (Johnson et al., 2001), prevent demoralization and avoidant coping (Weaver et al., 2005), alleviate loneliness (Schneider et al., 1991), and enhance positive mental states (Gonzalez et al., 2004).

While social media addiction is a major concern due to its potential impact on personal health, the current literature on this topic is limited and fragmented, with the evidence of the negative effects of social media addiction on personal health being largely anecdotal.

3.0 Methodology

3.1 Sample Selection & Data Collection

Data was collected through focus group discussion. The selection of focus group participants was done through purposive sampling, which is a qualitative research method that deliberately picks cases that contain valuable information (Patton, 2014). Unlike quantitative research that tries to represent a diverse group of people, purposive sampling aims to provide a detailed account of a particular experience. Therefore, participants were chosen based on their personal experience and their ability to express their thoughts about the topic, in order to offer a comprehensive understanding of user experience.



Total 53 participants were interviewed, under 9 different focus group interviews. 32 of them were male students, and 21 were female students, there average age was 23. The participation was voluntary no monetary terms were present there.

Interview questions were semi structured and open-ended questions were used. Questions were about how often they use SNS, How SNS changed their lives, does SNS effect on their personal life and relationships, whether they compare themselves with others on SNS. Students were not asked these questions directly; therefore, general questions were asked to identify their perceptions towards SNS and its usage.

3.2 Data Analysis

All focus group interview was conducted by the researcher herself, hence she could monitor interview cautiously. All interviews ran between 17-20 minutes. Each interview was recorded and transcribed to a detailed account. Names, and any identifying characters of students were changed to protect their privacy. Coding followed thematic analysis. This thematic approach was a realistic one which expresses participants' experiences, their meaning, and their reality as participant (Braun and Clarke, 2006). Thematic analysis was used to derive themes. These themes tried to express actual relationship between social media uses and personal wellbeing.

4.0 Results

Social media has become an integral part of many individuals' daily routines, including university students who represent a crucial part of a country's future. As such, prioritizing their mental well-being is critical. Several studies have established a connection between social media use and the mental health of students. The purpose of this study is to investigate the link between social media and the mental health of university students by identifying nine themes through in-depth interviews, providing a thorough analysis of the relationship between.

Participants experience and views about Social Media uses experiences are given below-

Theme(s)	Experiences of Participants
Mental Health & Social Media	Sometime I compare myself with others on social media (Participants 26)
	Many times, I feel anxious & depressed by using social media (Participants 27)
	Even after feeling depressed I tried to avoid social media but failed to do that. (Participants 17)
	I even blocked someone on social media to avoid stress. (participants 28)

The participants mentioned that excessive use of social media can lead to feelings of anxiety and depression. They noted that social media often portrays a polished and glamorous version of users' lives, which can create a false perception that everyone is leading a happy and successful life on platforms like Facebook and Instagram. As a result, some participants reported feeling a strong desire to have a similar colorful and exciting life as the one presented on social media, even if they don't necessarily want to.

Theme(s)	Experiences of Participants
	The social media platform I use has an impact on how I feel about myself. There are times when I feel confident because of it, but there are also times when I feel awkward or uncomfortable. (Participants 32)



Self-Perception & Personal Relationship with others	Social media tends to have a positive influence on my relationships with my friends and family most of the time. (Participants 24)
	Another participant reported that their relationships are sometimes negatively affected by social media. (Participants 19)
	I feel pressure to portrait a perfect image of me on social media. (Participants 16)
	Viewing other people's posts about their successes on social media can be inspiring, but at times it can also make me feel discouraged and like a failure. (Participants 24)
	The impact of social media on my ability to communicate with others in real life is mixed. While it does encourage me to discuss current issues with others, there are also times when it hinders my communication skills. (Participants 29)
	There are times when I unintentionally or suddenly compare my life with others on social media, even when I don't want to. (Participants 26)

During the interview, the participants shared that their personal relationships can be negatively impacted by social media. They noted that they sometimes feel pressured to follow the actions of others or their friends and family on social media, which can create tension in their relationships. Additionally, some participants reported forgetting special occasions of their loved ones due to excessive social media use. They expressed feeling frustrated when their loved ones compare them to someone on social media whose actions they admire, which they find to be a disappointing and discouraging experience.

Theme(s)	Experiences of Participants
Fear of Missing Out	I feel missing out valuable experience and events because I spend too much time on social media. (Participants 26)
	Sometime even I miss my real-life interaction due to social media platform. (Participants 27)
	Contradictorily to previous Some participants said, I feel out of the cast when I saw people are moving hanging out with their friends. (Participants 31)

According to the participants, they experience a sense of FOMO (fear of missing out) when they are unable to access social media for a few hours, believing that they might miss important events or updates. Additionally, some participants reported feeling out of touch with current trends if they don't follow the so-called social media trends.

Theme(s)	Experiences of Participants
Social Media addiction and Physical health	Most of them said they have an addiction to social media usage, and to minimize this sometimes they take a leave from social media. though it didn't work. (Participants 28)
	This addiction also leads to sleep deprivation or increment. (Participants 27)
	Some said excessive use of social media hampers their study, decrease concentration. (Participants 23)



The participants reported experiencing physical symptoms such as headaches and blurry vision as a result of excessive social media usage. Additionally, some participants noted a decrease in their ability to concentrate and remember information.

Theme(s)	Experiences of Participants
Self Confidence / Self Esteem	In times I bother how I looks like on others posts of my photo (Participants 21)
	I alwaysrefer uploading photo where I looks good, even sometimes use filters. (Participants 27)
	When my friends upload photo/status I look meticulously how many reactions and comments they are getting. Even sometime I focus I much attractive they are looking. (Participants 33)

The interviewees expressed concerns about their appearance on social media and the desire to present a perfect image online, leading to increased mental pressure

Theme(s)	Experiences of Participants
Social Media Influence on my decision making	Social media influence whom I would follow. (Participants 21)
	Social media makes me updated about new fashion trends. Even sometime social media updated me about current trends. (Participants 37)
	Social media influence my tastes of movies and songs also. (Participants 29)

The individuals who took part in the study indicated that they rely on influencers, particularly female participants, to guide them in their decision-making when it comes to buying clothing, cosmetics, and even choosing places to eat. On the other hand, male participants shared that they prefer to seek recommendations from Facebook groups specifically for purchasing electronic devices and automobiles.

Theme(s)	Experiences of Participants
Selfishness & Suicidal Thoughts	People become depressed by comparing themselves with others colorful lives on social media. (Participants 34)
	Social Media sometimes make people narcissist. (Participants 27)

The participants expressed significant concerns that provocative posts on social media can lead to suicidal thoughts, as some posts can cause depression and demotivation. They noted that certain posts can be triggering and contribute to negative mental health outcomes, including suicidal ideation.

Theme(s)	Experiences of Participants
Academic & Career Development	I use social media a lot for my study purpose. (Participants 39)
	Nowadays Social Media is one of the major platforms of job hunting. (Participants 37)



	Even Social media helps a lot to prepare for future job market. (Participants 29)
--	--

In today's world, social media plays a crucial role in the job-hunting process, as many individuals and organizations post about job vacancies on various social media platforms. Additionally, LinkedIn, a professional social platform, not only provides information about job openings but also helps users prepare for future job opportunities.

Theme(s)	Experiences of Participants
Social Media is refreshing & helpful	I got help from social media whenever I shared my problem on any group platform. (Participants 29)
	Social media act like refresher when I felt bored. (Participants 37)
	Social media is new platform of entertainment I forgot there is a TV on my home. (Participants 29)

Users have noted that, fortunately, social media platforms do not always have negative influences. In fact, social media can sometimes serve as a mental refresher and even act as a mood booster.

4.1 Discussion

Social media has become an integral aspect of the lives of young adults, particularly university students, and it is difficult to conceive modern life without these platforms. Social Networks is a network which connects all aged people under one platform. People of all ages, from the elderly to young individuals, are now using social networks as a form of entertainment and communication. Eventually this communication platform turns into an addictive issue. The writer of this article has observed that young adults begin their day by browsing social media and conclude it by holding their phone. This addictive behavior consequently results in anxiety, restlessness, mental illness, depression and other physical problems also. This qualitative article observed that social networks made people compare themselves with others, even users feel awkward and uncomfortable by seeing others activities on social media. Social media even directs relationships nowadays. SNS negatively influence relationships since users compares theirs with others. Social media has created an impression in people's minds that everyone should be perfect in every aspect of their lives. This eventually brings unhappiness, mental pressure. Users feel FOMO (fear of missing out) which directs their behavior to always be active on social media in the fear of missing something trending. Excessive use of social media leads to insomnia also. Even excessive use of social media weaken confidence as users always think themselves weak, ugly than others. Social media influence decision making which sometimes brings hazards as not all things showed on social media is trustworthy. The excessive use of social media is contributing to an increase in suicidal thoughts among young people, who may feel overwhelmed by comparisons to the colorful and seemingly perfect lives portrayed by others on social media. The original purpose of social media was to connect people, and that objective has not disappeared over time. Even after so many negatives sides social platform is acting as a business platform for so many people, is offers job hunting opportunity even shares career advices. To make the best use of social media, it is important to educate ourselves on proper usage, which includes minimizing screen time and cultivating confidence and contentment. The focus of this paper is on addressing the mental health issues that university students may face as a result of social media use, in order to help them minimize the negative effects and develop healthy usage habits. It is



important for universities to prioritize the mental health of their students and take necessary actions to promptly address any issues related to social media or other sources of stress.

4.2 Implications of the Study

The results of this study suggest that universities should consider providing resources and support to help students manage their social media use and promote healthy mental health habits. This could include offering workshops or courses on digital wellness, providing counseling services specifically tailored to addressing social media-related stress, or creating awareness campaigns that encourage students to take breaks from social media. Additionally, future research in this area could help to identify specific risk factors associated with social media use, and inform the development of more targeted interventions to support student mental health.

4.3 Limitations of the Study

The present study has certain limitations that need to be acknowledged. Firstly, the participant group is not representative or generalizable, and only reflects the experiences of the individuals who participated. Secondly, the themes identified in the study were not verified with the participants to confirm their accuracy and validity, leaving the possibility of interpretation bias on the part of the researcher. Thirdly, the sample was self-selected and not randomly chosen, which may have implications for the generalizability of the findings. Lastly, the response from male participants were higher than the female participants which eventually make the research result complicated.

5.0 Conclusions

In conclusion, this study highlights the complex and multifaceted relationship between social media and the mental health of university students. While social media platforms offer many benefits such as increased connectivity and access to information, they also present unique challenges and risks to students' mental well-being. Through in-depth interviews, researcher identified nine themes that shed light on these complexities, including the pressure to maintain a perfect online image, the impact of excessive social media uses on self-esteem, and the potential for triggering content to contribute to negative mental health outcomes. It is clear that social media use can have both positive and negative effects on university students' mental health, and it is important for students to be aware of these potential risks and to take steps to protect their well-being. This study is a qualitative study, hence there may be some difference of perception of readers with the researcher. More in-depth quantitative analysis should be done on this matter in future.

Overall, while the relationship between social media and mental health is complex, it is clear that more research is needed to fully understand this relationship. By addressing the limitations of existing research and working to develop effective strategies for supporting student mental health, universities can play a crucial role in promoting positive outcomes for students in an increasingly digital world. Future research should continue to explore this topic and identify effective interventions to mitigate the negative impacts of social media on students' mental health.

References

1. Amedie, Jacob (2015). "The Impact of Social Media on Society". *Advanced Writing: Pop Culture Intersections*.
2. Barrense-Dias, Y., Surís, J. C., & Akre, C. (2019). "When it deviates it becomes harassment, doesn't it?" A qualitative study on the definition of sexting according to adolescents and young adults, parents, and teachers. *Archives of sexual behavior*, 48, 2357-2366.



3. Brooks, S. (2015). Does personal social media usage affect efficiency and well-being?. *Computers in human behavior*, 46, 26-37.
4. Bhola, R. M., & Mahakud, G. C. (2014). A qualitative analysis of social networking usage. *International Journal of Research & Development of Health*, 2(1), 34-44.
5. Burnsed, B. (2010, November 19). 5 tips to avoid depression in college. US News
6. Clarke, A.M., Kuosmanen, T. and Barry, M.M., (2015). A systematic review of online youth mental health promotion and prevention interventions. *Journal of youth and adolescence*, 44(1), pp.90-113
7. Dodemaide, P., Merolli, M., Hill, N., & Joubert, L. (2022). Do social media impact young adult mental health and well-being? A Qualitative Study. *The British Journal of Social Work*, 52(8), 4664-4683.
8. GermannMolz, J. and Paris, C.M., (2015). The social affordances of flash packing: Exploring the mobility nexus of travel and communication. *Mobilities*, 10(2), pp.173-192
9. Gipson, P. Y., Agarwala, P., Opperman, K. J., Horwitz, A., & King, C. A. (2015). Columbia-suicide severity rating scale: predictive validity with adolescent psychiatric emergency patients. *Pediatric emergency care*, 31(2), 88.
10. Jordyn Young, (2018), No More FOMO: Limiting Social Media Decreases Loneliness and Depression. *Journal of Social and Clinical Psychology*. Vol. 37, No. 10, 2018, pp. 751-768
11. Len-Ríos, M.E., Hughes, H.E., McKee, L.G. and Young, H.N., (2016). Early adolescents as publics: A national survey of teens with social media accounts, their media use preferences, parental mediation, and perceived Internet literacy. *Public Relations Review*, 42(1), pp.101-108
12. Lin, N., (2017). Building a network theory of social capital. In *Social capital* (pp. 3-28).
13. McCall, L. (2007). Increasing class disparities among women and the politics of gender equity. In D. S. Cobble (Ed.), NY: Cornell University Press *The sex of class* (pp. 15-34). Ithaca.
14. Moreno, M. A., Jelenchick, L. A., Egan, K. G., Cox, E., Young, H., Gannon, K. E., & Becker, T. (2011). Feeling bad on Facebook: depression disclosures by college students on a social networking site. *Depression and Anxiety*, 28(6), 447-455.
15. O'Dell, J. (2011). For students, what is the Facebook effect on grades? Retrieved on November 6, 2011
16. O'Keeffe, G. S., Clarke-Pearson, K., & Council on Communications and Media. (2011). The impact of social media on children, adolescents, and families. *Pediatrics*, 127(4), 800- 804.
17. Parmar, N., (2017). *Digital Parenting*. United Learning Schools, Ashford, Kent.
18. Patel, V., Chisholm, D., Parikh, R., Charlson, F. J., Degenhardt, L., Dua, T., ... & Whiteford, H. (2016). Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities. *The Lancet*, 387(10028), 1672-1685.
19. Pater, J. and Mynatt, E.D., (2017). Defining Digital Self-Harm. In CSCW, ISBN: 978-1-4503-4335-0 (pp. 1501-1513)
20. Rajesh, Deepa & Priya, V Krishna. (2020). Impact of Social Media on Mental Health of Students. *International Journal of Scientific & Technology Research*. 9. 3796.
21. Segal, Z.V., Williams, M. and Teasdale, J., (2018). *Mindfulness-based cognitive therapy for depression*. Guilford Publications
22. Shensa, A., Escobar-Viera, C.G., Sidani, J.E., Bowman, N.D., Marshal, M.P. and Primack, B.A. (2017), –Problematic social media use and depressive symptoms among US young adults: a nationally representative study||, *Social Science & Medicine*, 182, 150-157
23. Thornicroft, G., Mehta, N., Clement, S., Evans-Lacko, S., Doherty, M., Rose, D., ... & Henderson, C. (2016). Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *The Lancet*, 387(10023), 1123-1132.



24. Townsend, L., Wallace, C., Smart, A., & Norman, T. (2016). Building virtual bridges: How rural micro-enterprises develop social capital in online and face-to-face settings. *Sociologia ruralis*, 56(1), 29-47.
25. Wood, Holly Scott. (2016). Sleepy teens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence*
26. World Health Organization, (2017). Preventing suicide: a resource for media professionals. who.int/gho/data/view
27. Zhang, Y., Pan, E., Song, L., Saad, W., Dawy, Z., & Han, Z. (2014). Social network aware device-to-device communication in wireless networks. *IEEE Transactions on Wireless Communications*, 14(1), 177-190.