Qualitative Review on the Negative Effects of Facebook Towards Mental Health

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Abstract

This study investigates the negative impacts of Facebook use on mental health, with a focus on its implications for achieving Sustainable Development Goal 3 (SDG 3): ensuring good health and well-being for all. As a dominant force in social media, Facebook has profoundly influenced societal behaviors and individual lifestyles since its inception. However, its pervasive use has been linked to mental health outcomes, including increased anxiety, depression, and feelings of social isolation. Through an exploration of behavioral patterns and psychological responses associated with excessive Facebook use, this study aims to uncover the subtle yet significant ways in which the platform may undermine mental well-being. The findings are expected to offer actionable insights into how prolonged social media engagement contributes to deteriorating mental health, particularly among vulnerable populations. Additionally, this study examines how demographic factors, such as age, mediating the relationship between Facebook use and mental health, highlighting disparities that challenge the universality of SDG 3. By raising awareness of the potential mental health risks posed by social media, this research underscores the urgency of fostering digital literacy and promoting healthier online habits as part of a broader effort to achieve mental well-being globally. Ultimately, the study advocates for a more balanced integration of social media into daily life to support the overarching goals of SDG 3.

Keywords

Facebook, social media, younger adults, older adults, mental health

Introduction

There are a multitude of social media platforms that regresses on a daily use from all walks of life throughout the globe. Based on the Web 2.0 architecture that enables user generated content (UGC) capabilities, the engagement from social media users has provided both positive and negative influences towards the community at large.

Although social media in general has done a lot of building communities and connecting people, there's also negative repercussions when actively engaging with social media applications, particularly platforms such as Facebook, being one of the more longstanding ones. Other studies

reported side effects mostly related to emotional and psychological damages (Aviv, 2023). The most common negative impact we can find in the current society is addiction. Dania Tamir, a researcher from Harvard University found that using social media sites can be addictive because they value opportunities to share ideas and feelings with others, and doing so can affect the reward system in our brains (Woolfe, 2013). This suggests that Individual that spends too much time on social media platforms can result in multiple negative mental health effects. This research aims to study the negative mental health effects in the prolonged use of social media, primarily using Facebook as the main case study.

Social media regresses on technologies that allow people to share ideas, thoughts, world news and information through virtual networks and communities. From a design point of view, social media is based on the Internet, providing users with rapid electronic content communication (Dollarhide, 2019). The content includes personal information, documents, videos and photos; among other mediums that carries data and information in one way or another. Users interact with social media via web-based software or applications through computers, tablets or smartphones, often using it to deliver information. There are more than 3 billion social media users worldwide. Social media is a changing and evolving web-based platform (Dollarhide, 2019).

Social media is a way to interact with friends and family, but later was also adopted by businesses that wanted to use popular new communication methods to reach out to customers. The power of social media is the ability to connect and share information with anyone on Earth or with many people at the same time. However, people these days is overusing the social media. We now use social media to share personal stories like how their husband got caught having an affair, or even what they had for breakfast. Social media is now a way to show off their lives and some people would even act as if they're living the best life.

In 2019, social media engagement exhibited several notable trends. Platforms emphasizing visual content, such as Instagram and Snapchat, maintained significant popularity among younger demographics; notably, 67% of 18- to 29-year-olds used Instagram, and 62% used Snapchat (Pew Research Center, 2019). The growing popularity of features like Instagram Stories indicated a shift towards temporary, in-the-moment content, encouraging more spontaneous and frequent user engagement (Buffer, 2019). Video content continued to dominate social media, with platforms prioritizing video features to enhance user engagement. Live streaming also gained traction, offering real-time interaction opportunities (Smart Insights, 2019). Brands increasingly partnered with social media influencers to reach targeted audiences, leveraging the trust and engagement these personalities commanded within their follower bases.

Different platforms exhibited varying engagement levels. For instance, Instagram maintained high engagement rates, with an average rate of 1.6%, reflecting its effectiveness in fostering user interaction (Rival IQ, 2019). A significant portion of social media engagement occurred via mobile devices. As of the fourth quarter of 2019, mobile accounted for 83% of social media site visits in the United States, highlighting the importance of mobile optimization for user interaction. These trends underscored the dynamic nature of social media engagement in 2019, emphasizing the importance of visual content, mobile accessibility, and strategic collaborations in enhancing user interaction across platforms.

Recent studies have delved into various facets of social media engagement, highlighting its multifaceted impact on society. Bekalu and McCloud (2020) found that routine daily use of social media positively correlates with social well-being, mental health, and self-rated health, suggesting that the manner of social media usage significantly influences mental health outcomes. In the educational sphere, social media has been instrumental in enhancing academic engagement and management efficiency. Research indicates that platforms like Facebook, Instagram, and LinkedIn play a pivotal role in promoting academic interactions and facilitating efficient management practices within educational institutions.

However, the relationship between social media and academic engagement is complex. A study published in 2024 revealed an inverse relationship between social media addiction and academic engagement, indicating that higher levels of social media addiction are associated with decreased academic involvement. In the realm of marketing, the dynamics of consumer engagement on social media have been explored, emphasizing the significance of trust in brands and influencers. Consumers who trust brands or social media influencers are more willing to share information without fear of exploitation, underscoring the importance of building trust to enhance engagement. Furthermore, the integration of Large Language Models (LLMs) and AI tools has transformed student engagement on social media. These technologies have enhanced personalization, communication efficiency, and collaborative learning, contributing to improved academic performance and critical thinking skills among students. These findings underscore the dual-edged nature of social media engagement, offering both opportunities and challenges across different sectors of society.

Although it is important to consider the basic functionality of Facebook, it is more important to consider how the platform is used and who uses it. In 2009, Sledgianowski and Kulviwat investigated why an individual want to join Facebook. According to their convenient sample of 289 students at an American university, normative stress, trust, ease of use, the game and critical number of sites were the main drivers of participation. Future research will confirm the importance of stress. For example, Cheung and Lee studied convenient samples of 389 students in 2010 and marked the importance of social identity (awareness of group membership and emotional significance to it) and subjective compliances. In 2010, Kwon and Wen conducted a study of a sample of 229 South Korean interviewees, linking the two studies by showing a positive correlation between perceived usefulness and social identity. After joining SNS, stress still seems important because Skageby's S (2009) document analysis shows that users are not satisfied with the pressure to accept requests from colleagues and employers. From the analysis of the mentioned past articles, it is evident that most researchers reports the negative effects leading to mental health.

Mental health refers to the empowerment of industries and communities to enable them to achieve their own goals (Investing in mental health, 2003). Mental health can affect a lot of things in an individual, it can change a person's daily life, relationships and even physical appearance (J. Legg and Nordqvist, 2017). Mental disorders are one of the main causes of disability in the United States and many developed countries (J. Legg and Nordqvist, 2017). In every 10 years, Ministry of health Malaysia will carry out a survey on illness, including mental health problems on adults and children. According to the data collected from National Health and Morbidity Survey 2015, 3 out of 10 adults aged 16 and above had mental health problems which is a total of 29.2% in the

whole Malaysia population. The data shown in 1996 was 10.7% and in 2015, a total of 18.5% of mental health problems in adults had increased.

In an exploratory study (Krasnova et al., 2013), participants were asked to report their overall feelings after their most recent Facebook usage. 36.8% of the respondents reported at least one negative emotional outcome (such as sad, lonely, and envious). Envy, a pain caused by the good fortune of others, is another potential emotional outcome of encountering positive news on Facebook (Krasnova et al., 2013), and it might be a reason why browsing Facebook can lead to depression. As Appel et al. (2016) observe, in their Facebook profiles, individuals convey teeming social comparison data disclosing chiefly positive self-portrayals, and thus supplying a productive ground for envy. According to Farquhar and Davidson (2014), many people with social anxiety often use computer-based communication as a avoidance strategy to reduce their anxiety in social interaction. However, this often leads to a phenomenon called Facebook anxiety (Davidson and Farquhar, 2014). This often happens when they already feel the pressure to go offline because their online characters are highly available on social media and magnify their own performance in the best light. According to another study, Facebook can make people feel inadequate and create too much worry and stress, thus increasing their level of anxiety (Maldonado, 2018). Social media provides continuous updates. This has prompted many people to constantly check their status and news feeds on mobile devices. Some people have a constant urge to check for updates and feel relieved only when they turn off their mobile devices.

Methodology

In this research, the methodology that was used for this research was one-on-one in-depth interview. In this paper, a series of questions were set before the interview, and those questions were asked throughout the interviews. To conduct the interview, 4 different groups of interviewees were contacted and had set up meetings for face-to-face in-depth interviews. The groups consisted of psychology professional, social media activist, laymen (working adults), and students.

There are 2 sets of questions that is used during the interview, which are the 'general set' and the 'specific set'. The general set of questions applies to all groups of interviewees, whereas the specific set is different for each of the respective groups. Both the general set and the specific set of questions are listed in the appendix chapter.

Data collected through interviewing a professional in psychology helps to study the definition of mental health and what some of the mental health illnesses are. This highly provides key information on some of the causes and effects on negative mental health.

The second group of interviewees are seasoned social media activists, and all have been attached to social media agencies for more than 5 years. This is mostly to provide more precise data and information in handling the mechanics of social media engagement though the available platforms.

The last 2 groups are consumers of social media, and divided mainly based on the age group, hence referring to working adults and students. The age range for students are between 18

to 25 years old and the age range for working adults are categorized between 25 to 60 years old. The comparison between these two extreme age groups helps to test the proposition that students have a higher probability of developing mental health problems when using Facebook compared to the working adults.

For this research, thematic analysis was being used to study the data collected. Thematic analysis involves generating concise code to identify important features of data that may be relevant to answering research questions. The code is then reviewed and collated to identify important themes. Diagram 2 presents the description of the themes and sub-themes.

Results and Discussion

The chapter discusses the data analysis and the findings gathered from the one-on-one in-depth interviews. The purpose of thematic analysis is to identify patterns of meaning across a dataset that provide an answer to the research question being addressed. Themes were developed through a rigorous process of data familiarization, data coding, and theme development and revision of the transcribed interview. Three categories of themes emerged from the data were analysis as shown in Figure 1. The three themes according to the findings specific to the research questions were '*Facebook Use*', '*Negative mental health effects of Facebook Use*' and '*Age*'.
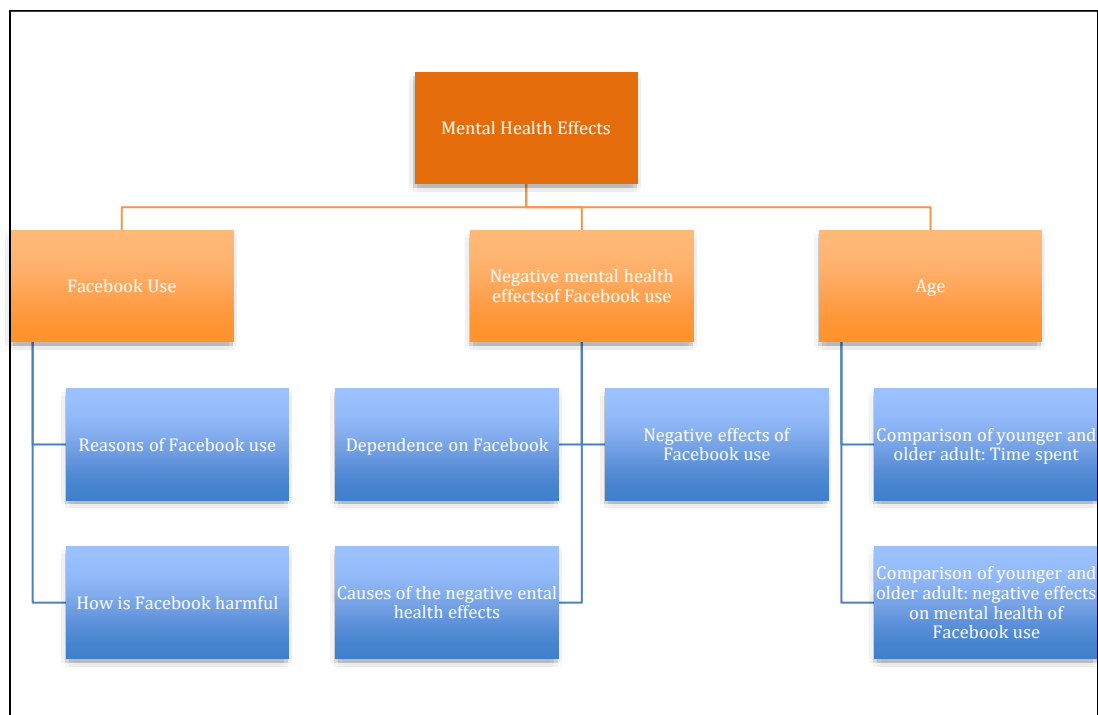

Figure 1: Thematic Analysis Result

From the outcome of the qualitative analysis, this study is able to compile the data and map the mental health effects to the predicted causes as shown in Table 1. The mapping shows that depression could be caused by social comparison, puberty, low self-esteem and cyberbullying when using Facebook. The cause of social anxiety is quite similar with depression, except that

being too dependent on Facebook and lack of real communication are also the cause of social anxiety. With reference to past research documented in the literature, it is mentioned that stress and anxiety can be quite similar sometimes, but it is different from the psychology view. Stress is the body's reaction to a trigger and is generally a short-term experience. Stress can be positive or negative, however, anxiety on the other hand, is a sustained mental health disorder that can be triggered by stress. The literature denotes that stress is usually caused by social comparison, low self-esteem, cyberbullying and lack of real communication. Long consumption of Facebook with lower self-esteem and are constantly comparing themselves with society might have a higher chance of acquiring envy status. In addition, being too dependent on Facebook can also cause poor memory problems.

Table 1. Cause and Effect for Mental Health

Negative mental health effects	Causes of each mental health effects					
	Social Comparison	Puberty/ hormones	Low self-esteem	Too dependent on FB	Lack of real communication	Cyberbullying
Depression	✕	✕	✕			✕
Social Anxiety	✕	✕	✕	✕	✕	✕
Envy	✕		✕			
Memory Decline				✕		
Stress	✕		✕		✕	✕

From the outcome acquired, this study proposes a Venn Diagram that maps the overlapping effects of the mental health effects as shown in Figure 2.
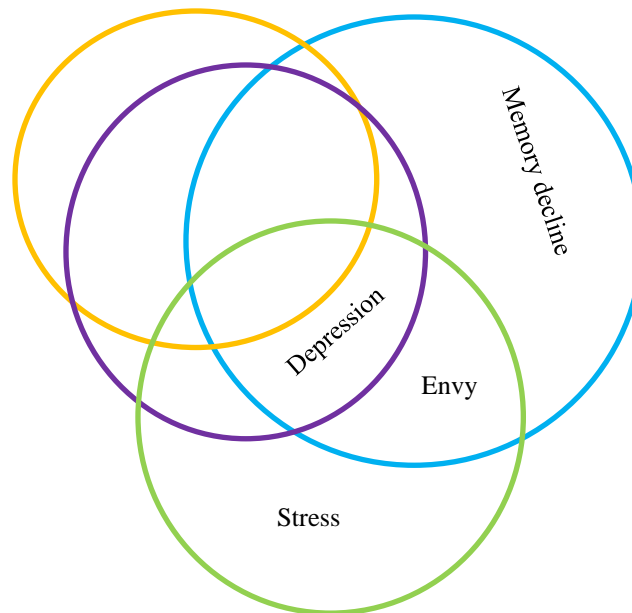
Figure 2: Mental Health Effects

Figure 2 shows the negative mental health effects of using Facebook that the interviewees have mentioned during the process of research. The different colour circles represents the different elements (negative effects) extracted pattern from the coding of the thematic analytics. If the elements (negative effects) in the circle overlap, these elements are common to the interviewee. In the diagram above, the most commonly mentioned negative effects of using Facebook are depression and social anxiety. This leads to the conclusion that depression and social anxiety are dominant negative effects particularly in correlation to the lengthy use of Facebook.

Acknowledgements

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Appendix

General Questions (for all groups):
1. How frequently do you use Facebook, and for what purposes?
2. What are your thoughts on how Facebook influences mental health?
3. Have you observed or experienced any specific negative mental health effects associated with Facebook use?
4. What features of Facebook (e.g., News Feed, likes, comments) do you believe have the most significant impact on mental well-being?
5. In your opinion, how can users protect themselves from potential negative mental health effects caused by Facebook?

Specific Questions for Psychology Professionals:
1. Based on your experience, what are the most common mental health issues linked to excessive Facebook use?
2. Can you share any case studies or examples where Facebook was identified as a contributing factor to mental health challenges?
3. How does Facebook use affect different age groups and their mental health vulnerabilities?
4. What recommendations would you make to individuals or organizations to mitigate Facebook's adverse mental health effects?
5. How can mental health professionals address the role of social media in therapy sessions?

Specific Questions for Social Media Activists:
1. How do you perceive Facebook's role in shaping social behavior and mental well-being?
2. What advocacy efforts have you or your organization undertaken to address social media's impact on mental health?
3. In your view, what responsibility does Facebook have in addressing mental health issues linked to its platform?
4. Have you observed any positive outcomes from raising awareness about the mental health risks of social media?
5. What policy or design changes would you recommend in reducing Facebook's negative impact on mental health?

Specific Questions for Working Adults:
1. How would you describe your emotional state after using Facebook for an extended period?
2. Have you ever felt anxious, stressed, or sad because of something you saw on Facebook? Can you share an example?
3. Do you think Facebook affects your relationships with others? How?
4. Have you ever considered reducing your Facebook usage because of its impact on your mental health? Why or why not?
5. What do you think Facebook could do to make the platform healthier for its users?

Specific Questions for Students:
1. How does Facebook affect your academic focus or time management?
2. Have you experienced any feelings of inadequacy or low self-esteem while using Facebook? If yes, what triggers these feelings?
3. How do you think Facebook influences your social interactions with friends and family?
4. Do you notice differences in how Facebook affects your mental health compared to other social media platforms?
5. What strategies do you use to manage the potential negative effects of Facebook on your mental well-being?