Impact of the Use of Social Networks on the Mental Health of University Students of the State University of Milagro: A Quantitative Study on Depression, Anxiety, Self-esteem and Social Interactions

Juri Evelyn Nuñez Portilla¹, Gabriel Omar León Jacome², Gabriel Omar León Jacome³ and Lisset Alexandra Manzano Gallegos⁴

Abstract

The objective of this research was to analyze how the use of social networks affects the mental health of university students, taking into account depression, anxiety, self-esteem and social interactions. A quantitative investigation was carried out using a standardized and validated questionnaire, using a significant sample of students from the State University of Milagro. Once the results of the survey have been analyzed, it can be said that the excessive use of social networks distracts students from their studies, negatively affecting their academic performance from emotional problems, academic and social difficulties, sleep disorders and addiction, some people They use social networks to expand their social circle or express themselves personally, although these are not main reasons for the majority of the sample surveyed.

Keywords: Social Networks, Mental Health, University Students, Depression, Anxiety.

INTRODUCTION

Social networks are digital platforms that enable users to connect and communicate with others via the internet. These platforms facilitate online social interaction, content sharing, the creation of personal profiles, and participation in virtual communities. Examples of social media include Facebook, Instagram, Twitter, and Snapchat. Through these platforms, students can share photos, videos, opinions, and experiences with their friends and followers. Social media have become an integral part of the lives of many university students, but they also pose challenges in terms of mental health. (Castaño et al. 2022). In Ecuador, between the years 2022 and 2023, it is estimated that 14.72 million users utilize the internet, among which 13.30 million users engage with some type of social media platform, such as Facebook, Instagram, Twitter, and Snapchat. (Kemp, 2023).

In this new era, the internet and social media are indispensable elements in the education and mental health of university students, significantly impacting their academic performance, interpersonal relationships, and overall well-being. On the other hand, the negative effects of excessive social media use, including its influence on self-esteem and its relationship with anxiety and depression, are also evident. (Toral et al. 2023).

For university students, mental health assumes paramount importance due to its impact on various aspects of their lives. Optimal mental health enables students to fully develop their academic, social, and emotional potential. Moreover, the university stage is characterized as a period of transition and personal growth, where students face new challenges and pressures. Therefore, it is essential to address and promote mental health within this student population sector.

The concern regarding the negative impact of social media use on the mental health of university students is significant. While social media offers benefits such as facilitating communication and information exchange, it can also contribute to problems like addiction, constant comparison, online harassment, and more. These issues can have severe consequences for students' mental health, including anxiety, depression, social isolation, and

¹ Magister en Educación mención en Tecnología e Innovación Educativa, Universidad Estatal de Milagro, Email: jnunezp2@unemi.edu.ec
² Máster Universitario en Actividad Física y Salud, Universidad Europea de Madrid, Email: jzapac1@unemi.edu.ec
³ Máster Universitario en Actividad Física y Salud, Universidad Europea de Madrid, Email: gleonj2@unemi.edu.ec
⁴ Magister en Enfermería con Mención en Enfermería de Cuidados Críticos, Universidad Regional Autónoma de los Andes, Email: lmanzanog@unemi.edu.ec
decreased academic performance. Therefore, it is necessary to thoroughly analyze these negative effects and seek strategies to address them effectively.

For all these reasons, the objective of this research was to analyze the impact of social media on the mental health of university students. With the increasing use of social media in today's society, it is important to understand how this phenomenon affects a specific group such as university students. The research focused on exploring the negative effects of excessive social media use, its influence on students' self-esteem, and its relationship with anxiety and depression.

Social Networks

Social networks are digital platforms that allow people to connect and communicate with each other via the Internet. These platforms facilitate the creation of personal profiles where users can share information, photos, videos, and opinions. In addition to interacting with friends and family, social media also provide the opportunity to meet new people and participate in communities or groups related to common interests, such as Facebook, Instagram, Twitter, and LinkedIn. (Guananga Pillajo & Muñoz Maldonado, 2023)

Types Of Social Networks

Currently, social media has evolved over the years to adapt to the different needs and interests of users. The following types of social media can be mentioned.

Horizontal: These platforms are designed for communication between people from different parts of the world, allowing them to share diverse content and stay updated on the news and activities of friends, family, and contacts. This type of social network offers features such as multimedia content posting, direct messaging, comments, reactions, thematic groups, and events. Examples: Facebook, Twitter, Instagram, LinkedIn. (Sánchez-Pacheco, 2020)

Verticals: This type of network is designed to facilitate networking and promote professional job and business opportunities. These platforms are geared towards the professional sphere, offering tools and functionalities that allow users to showcase their work experience, participate in discussions related to their field of work, and simultaneously share relevant content and establish professional contacts. Examples include LinkedIn, Xing, and Viadeo. (Monedero Rivera, 2020)

Entertainment and Multimedia Content: These platforms are exclusively used for entertainment purposes, offering a variety of media including music, games, videos, memes, and other forms of amusement. The primary function of these social networks is to provide users with enjoyment and leisure, allowing them to connect with friends, follow celebrities, discover new content, and engage with online communities sharing similar interests. Examples include YouTube, Vimeo, TikTok, Snapchat, and Twitch. (Medina et al, 2022)

Images: This type of social network is utilized for sharing and viewing images, enabling users to upload, share, comment on, save, and explore a wide variety of images across different formats and themes. Examples include Instagram and Pinterest. (Monedero Rivera, 2020)

Messaging: A platform focused on communication through text messages, allowing users to send short messages, share links, images, videos, and other types of content quickly and directly with their network connections. Examples include WhatsApp, Telegram, and Messenger.

Mental Health

Mental Health is associated with the overall state of emotional, psychological, and social well-being of an individual, encompassing the capacity to manage stress, relate to others, make decisions, solve problems, and effectively cope with life's challenges. Mental health extends beyond the absence of mental disorders, but also involves the development of skills to confront and overcome daily obstacles. (Muñoz et al., 2021)
It is important to promote awareness and care for mental health, as well as seek professional help when necessary to address any issues or mental disorders that may arise. Mental health is fundamental to a person's overall well-being and has a significant impact on their quality of life, interpersonal relationships, academic and occupational performance, and ability to face life's challenges.

**Key Aspects of Mental Health**

**Emotional Well-Being**: the capacity to experience emotions in a balanced, adaptive manner and manage them healthily.

**Self-Esteem and Self-Acceptance**: having a positive perception of oneself, accepting oneself as is, and having confidence in one's abilities and capacities.

**Healthy Interpersonal Relationships**: maintaining satisfying and meaningful relationships with others based on respect, empathy, and effective communication.

**Resilience**: the ability to adapt and recover from difficult or traumatic situations, learning from experiences and growing as an individual.

**Emotional Balance**: maintaining a balance among various areas of life such as work, family, leisure, and self-care to prevent stress and burnout.

**Autonomy and Self-Determination**: the capacity to make one's own decisions, set goals, and pursue one's own interests independently. ([Cussó et al. 2022](#))

**Influence of Social Media on Students' Self-Esteem**

The influence of social media on students' self-esteem can be significant and varied; these platforms often depict idealized versions of people's lives, leading to social comparison. Students may feel inferior or dissatisfied with their own lives when comparing themselves to the images and achievements of others on social media, which can negatively impact their self-esteem. ([Cuamba Osorio & Zazueta Sánchez, 2020](#))

The quantity of "likes," comments, and followers on social media posts can become a measure of personal validation for some students. The lack of online interaction or the perception that posts are not popular can generate feelings of insecurity and low self-esteem.

Cyberbullying or online harassment is a common issue; negative comments, teasing, and exclusion can have a devastating impact on students' self-esteem, especially if they are subjected to repeated attacks. Many students tend to only showcase the most positive aspects of their lives on social media, which can distort reality and create a gap between the image they project online and their true selves. This can lead to feelings of inauthenticity and affect self-esteem ([Navarrete et al., 2022](#)).

However, social media can also have a positive impact on students' self-esteem by providing a space for personal expression, connection with friends, social support, positive interactions, and constructive feedback, which can reinforce self-esteem and a sense of belonging.

The influence of social media on students' self-esteem largely depends on how they are used and individually perceived. It is important to foster a culture where students are aware of the potential effects of social media on their emotional well-being and know how to manage them in a healthy and balanced way. Additionally, support from parents, educators, and mental health professionals is crucial in helping students develop positive and resilient self-esteem.

**The Relationship Between Social Media and Students' Mental Health Issues**

The impact of social media on the mental health of college students is a topic of growing concern and research. Social media has become deeply ingrained in the lives of young people, particularly college students, raising concerns about its potential adverse effects on their psychological well-being. To delve into this topic, researchers are conducting quantitative studies using standardized questionnaires to analyze the link between social media use and mental health among college students ([Vásquez Sampedro, 2022](#)).
The study aimed to explore how social media influences various facets of mental health, including depression, anxiety, self-esteem, and social interactions. Evidence suggests that the rapid integration of social media into students' lives can lead to complications and disadvantages for their mental health, exacerbating conditions such as depression, anxiety, bipolar disorder, and personality issues. Additionally, college students may turn to social media as a coping mechanism for emotional distress, unwittingly worsening their mental health outcomes.

The addictive nature of social media can prompt social and behavioral problems, as well as a loss of traditional values such as empathy, understanding, and genuine connection with others. This excessive emphasis on external appearances and validation on social media platforms may detract from an individual's intrinsic value and values, potentially impacting their mental well-being. Moreover, excessive use of social media can lead to digital hypervigilance, creating a constant need for validation, competition, and admiration among college students, negatively affecting their mental health and social interactions. (Lozano Lucio, 2023)

**Negative Effects of Excessive Social Media Use on Students' Mental Well-Being**

Excessive use of social media can have detrimental effects on students' mental well-being, particularly in the university environment. Studies have shown that prolonged engagement in social media can lead to addiction, which in turn can significantly impact students' mental health outcomes. Lower socioeconomic status may exacerbate these negative effects, highlighting a potential disparity in how social media use affects individuals based on their financial circumstances (Martínez-Líbano & González Campusano, 2022).

Research specifically focused on university students has aimed to determine the association between social media addiction and its consequences on mental health, shedding light on the urgent need to address this issue among the college population. To mitigate potential impacts on mental health, major social media platforms have taken steps to implement measures safeguarding the well-being of their users, indicating recognition of the harmful effects excessive social media use can have on mental health. The influence of social media on the mental health of university students has been the subject of systematic reviews, underscoring the importance of understanding and addressing the implications of social media use on the psychological well-being of this demographic group.

**Relationship Between Social Media, Anxiety, and Depression in Students**

The relationship between social media and anxiety and depression in students is a topic of increasing interest in psychological and academic research. Social media often portray an idealized version of people's lives, leading to social comparison. Students may feel inferior or dissatisfied with their own lives when comparing themselves to the images and achievements of others on social media, which can increase anxiety and depression (Casado and Sánchez, 2022).

Fear of missing out is common among social media users, especially among students; the constant barrage of status updates, photos, and events can make students anxious about not being constantly connected and participating in what is happening online. Cyberbullying is a significant issue on social media and can have serious consequences for students' mental health. Online harassment can increase levels of anxiety and depression, as well as decrease self-esteem and self-worth.

Although social media can provide a sense of connection with others, they can also contribute to feelings of isolation and loneliness. Students may feel alienated or disconnected if they perceive that they do not have the same amount of interactions or followers as their peers on social media. Social media platforms are often filled with negative news and events, as well as polarized and contentious discussions. Constant exposure to this type of content can increase levels of anxiety and depression in students, especially if they feel powerless to do anything about it. (Valentine y otros, 2019)
MATERIALS AND METHODS
The method employed to conduct this study was a non-experimental design, observing existing situations of a quantitative nature because the collected data are represented numerically with a descriptive, correlational, and cross-sectional scope. The relationship between the proposed study variables was analyzed in this study.

Social Media Usage Questionnaire
The instrument used to collect data on social media usage and its impact on mental health was the Social Media Addiction Questionnaire (ARS), developed by Escurra and Salas (2014), and the Internet Addiction Test (IAT) developed by Dr. Kimberly Young. A survey consisting of 12 questions was employed, with the first six questions focusing on social media usage and the remaining six aimed at assessing students’ mental health. Given the cross-sectional nature of this research, data processing was conducted through the application of the instrument, allowing for descriptive interpretation of the results. Data were organized in an Excel spreadsheet and subsequently exported to the statistical software SPSS for tabulation and modeling of the results.

The study subjects will be students enrolled in the 18-2024 term, divided into three modalities (in-person, semi-in-person, and virtual) according to data from the university’s registrar. The University of Milagro has a total of 55,802 students. With this information, a sample size was calculated at a 95% confidence level and a 5% margin of error, resulting in the need to administer 383 surveys randomly and conveniently divided proportionally according to the modalities of study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of the social network</td>
<td>Of the following social networks, which one do you use the most? YouTube, Twitter, Facebook, Instagram</td>
<td></td>
</tr>
<tr>
<td>Type of information shared</td>
<td>What type of information do you share on social networks? Photos, videos, music, feelings, emotions</td>
<td></td>
</tr>
<tr>
<td>Common interests</td>
<td>Why do you use social networks? Communicate with friends, talk about myself, Share videos and photos, find new friends, use chat, Have more information about my Friends</td>
<td></td>
</tr>
<tr>
<td>Frequencies of use of social networks</td>
<td>How many hours a day do you spend on social networks? 2-4 hours, 5-7 hours, 8-10 hours, More than 10 hours</td>
<td></td>
</tr>
<tr>
<td>Emotions</td>
<td>Have you ever felt left out or belittled because of what you've seen on social media? Very little, sometimes, frequently, very frequently, never.</td>
<td></td>
</tr>
<tr>
<td>I use networks</td>
<td>Do you feel that your use of social media affects your ability to concentrate on your studies? Very little, sometimes, frequently, very frequently, never.</td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td>Do you think that social networks influence mental health? Strongly disagree, Disagree, Agree, Strongly agree, Indifferent</td>
<td></td>
</tr>
<tr>
<td>Moods</td>
<td>Have you experienced anxiety, depression, lack of sleep, comparisons between users, online addiction, cyberbullying, social isolation? Strongly disagree, Disagree, Agree, Strongly agree, Indifferent</td>
<td></td>
</tr>
<tr>
<td>Personality</td>
<td>Which personality trait do you identify with? Shy, quiet, Sociable, daring, shy and calm</td>
<td></td>
</tr>
<tr>
<td>Behavior</td>
<td>Do you feel anxious, nervous, depressed or bored when you are not connected to the internet? Always, sometimes, never</td>
<td></td>
</tr>
<tr>
<td>Relapse</td>
<td>How often in the last year have you tried to reduce your social media use without success? Very little, sometimes, frequently, very frequently, never.</td>
<td></td>
</tr>
</tbody>
</table>
Impact of the Use of Social Networks on the Mental Health of University Students of the State University of Milagro: A Quantitative Study on Depression, Anxiety, Self-esteem and Social Interactions

<table>
<thead>
<tr>
<th>Social support</th>
<th>Do you think social media can provide a sense of social support?</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Indifferent</th>
</tr>
</thead>
</table>

Own elaboration

RESULTS

Graph I. Of the following social networks, which one do you use the most?

![Graph showing social network usage]

Analysis. In the distribution of data, Facebook is the most used social network among the options presented, with 45.3% of surveyed individuals preferring it; Instagram ranks second in terms of popularity, with 33.94% of people using it, while YouTube is the third most popular choice, with 19.06% of surveyed individuals. Twitter is the least used social network, with only 1.57% of people preferring it. Facebook is the most popular social network among the surveyed sample, followed by Instagram and YouTube, while Twitter has the fewest users according to this data.

Graph II. What type of information do you share on social media?

![Graph showing content sharing]

Analysis. In the data distribution, it is observed that photos are the most shared type of content on social media, with 53% of surveyed individuals, while videos are the second most popular option, with 18.8% of people preferring to share this type of content. Additionally, music is another type of content shared on social media, with 14.62% of people preferring it. Similarly, emotions are shared by 9.4% of surveyed individuals, which may include mood states, emotional reactions to events or experiences, and general expressions of feelings. Feelings are shared by 4.18% of people, referring to personal opinions, intimate reflections, or deeper emotional experiences that individuals choose to share on social media.
Graph III. Why do you use social media?

Analysis. In the tabulation of data, the most common reason for using social media is to communicate with friends, with 48.04% of surveyed individuals preferring it. Sharing videos and photos is another significant reason for using social media, with 34.2% of people indicating this, reflecting the important role that social media plays as platforms for sharing visual content with friends and followers. 9.14% express that the instant messaging function within social media is valued by a significant portion of the surveyed sample for communicating more directly and privately. Having more information about my friends is mentioned by 4.7%, indicating that some individuals use social media to stay updated on the lives and activities of their friends, which may include viewing posts, photos, and videos shared by them. On the other hand, finding new friends and talking about myself are mentioned by a smaller percentage of individuals, at 2.61% and 1.31% respectively. This suggests that while some people use social media to expand their social circle or express themselves personally, these are not primary reasons for most of the surveyed sample.

Graph IV. How many hours per day do you spend on social media?

Analysis. According to the tabulated data, the most common time frame spent on social media per day is between 2 and 4 hours, with 65.54% indicating they use social media during this time period. Between 5 and 7 hours per day is the second most common time frame, with 28.46%, and between 8 and 10 hours per day is mentioned by 4.44%. This indicates that a minority spends even longer periods on social media. Spending more than 10 hours per day is the least common time frame, with only 1.57% of individuals indicating they use social media during this time period. Although it is a minority, it is important to note that some people spend a significant amount of time on social media every day, which may have implications for their well-being and mental health.

Graph V. Have you ever felt excluded or belittled because of what you have seen on social media?

Analysis. These statistical data provide valuable insights. Rarely is the most common response, with 22.72% indicating that they rarely felt excluded or belittled due to what they have seen on social media. Sometimes is mentioned by 25.59%, indicating that a considerable proportion of the sample has experienced some form of exclusion or belittlement at some point due to what they have seen on social media, although not frequently. Never is the highest response, with 45.69% indicating they have never felt excluded or belittled due to what they have seen on social media. Frequently and very frequently are the least common responses, with 4.18% and 1.83% respectively. This suggests that only a minority of the sample experiences exclusion or
belittlement regularly or intensely due to what they see on social media.

**Graph VI.** Do you feel that the use of social media affects your ability to concentrate on your studies?

![Graph showing the distribution of responses to the question: Do you feel that the use of social media affects your ability to concentrate on your studies?](image)

**Analysis.** According to the tabulated data, rarely is the most common response, with 21.15% of surveyed individuals indicating that the use of social media minimally affects their ability to concentrate on their studies. Meanwhile, sometimes is mentioned by 30.29%, indicating that a considerable proportion of the sample has experienced some impact on their concentration due to the use of social media at some point, although not consistently. On the other hand, frequently and very frequently are significant responses, with 22.98% and 11.23% respectively, suggesting that a significant portion of the sample experiences frequent or constant difficulties concentrating on their studies due to the use of social media. Never is the least common response, with 14.36% indicating that the use of social media never affects their ability to concentrate on their studies.

**DISCUSSION**

This study investigated the impact of social media on the mental health of university students, and it can be concluded that Facebook remains a popular platform for connecting and sharing content. Photos are the most shared type of content on social media, followed by videos and music. Additionally, emotions and feelings are also shared by a significant portion of individuals, suggesting that social media serves as platforms for expressing a variety of experiences and emotions.

Among the main reasons for using social media among the surveyed sample are communicating with friends and sharing visual content, followed by using the chat function and staying informed about their friends' lives. According to the authors (Regalado Chamorro et al., 2022), several adolescents prefer to interact and focus on their cyber relationships and practice their social skills on the internet and social media platforms such as WhatsApp, Telegram, Facebook, Instagram, Twitter, TikTok, which affect the level of attention required and share a common denominator, which is likes, translating into approval and acceptance of their own self-esteem for having more followers.

Regarding the relationship with experiencing anxiety, depression, lack of sleep, comparisons between users, addiction to the network, cyberbullying, social isolation, a considerable proportion have experienced at least some of them to some extent, with a significant portion indicating that they agree or strongly agree to have experienced these issues. This suggests that the negative effects of social media use are a significant concern for a considerable portion of the sample. (Pallejá, 2023) indicates that social media usage time is related to irritability and behavioral problems, as well as a higher risk of addiction and impairment in daily life.

Likewise, it was found that the majority of surveyed individuals agree that social media influences mental health, with a considerable proportion indicating that they strongly agree with this statement. This suggests that there is a widespread perception that social media use can have a significant impact on people's mental health. (Moreira de Freitas et al., 2021) state that excessive use of social media can have a significant impact on mental health. It has been found to cause problems such as anxiety, depression, and loneliness. Social media can exert constant pressure on people to maintain an idealized view of their lives, leading to unrealistic comparisons with others.

On the other hand, a significant portion of surveyed individuals has attempted to reduce their use of social media over the past year. The data suggest that these attempts have not always been successful, with a considerable proportion indicating that they have experienced difficulties in effectively reducing their usage.
This highlights the challenges that some people face when trying to control their time and behavior on social media.

In conclusion, this study highlights the importance of considering that the use of social media in university students causes problems in mental health, resulting in the need to promote proper use of social media and the negative impacts of its use.

CONCLUSIONS

It is concluded that the impact of social media on the mental health of university students at the State University of Milagro is one of the most relevant topics in our current society. Therefore, the effects of social media on mental health were investigated.

The compulsive use of social media is related to disorders such as anxiety or depression; the greater the compulsive use of social media, the higher the level of these disorders. Constantly maintaining attention on the screen brings consequences and impacts on the mental health of students.

Findings suggest that excessive use of social media among students can have multiple negative impacts on their mental health, including emotional problems, academic and social difficulties, sleep disorders, and addiction. The time spent interacting online can reduce the time available for face-to-face interaction, which can lead to feelings of loneliness and a decrease in satisfaction with interpersonal relationships. It is important for students, educators, and mental health professionals to be aware of these risks and work together to promote healthy and balanced use of social media.

Conducting in-depth qualitative studies to explore the experiences and perceptions of social media users regarding their mental health would provide detailed information on the underlying mechanisms and coping strategies used by students. By addressing these areas of research, understanding of the complex relationship between social media use and mental health can be advanced, and effective interventions can be developed to promote a healthier and more beneficial online environment for all users.

REFERENCES


INTERNATIONAL JOURNAL OF RELIGION 4709
Impact of the Use of Social Networks on the Mental Health of University Students of the State University of Milagro: A Quantitative Study on Depression, Anxiety, Self-esteem and Social Interactions


Monedero Rivera, P. (2020). Reclutamiento y selección a través de redes sociales: especial atención a LinkedIn. uva.es


¿Cree usted que las redes sociales influyen en la salud mental?

¿Con cuál rasgo de personalidad te identificas?

¿Cree usted que las redes sociales pueden proporcionar un sentido de apoyo social?

¿Ha experimentado ansiedad, depresión, falta de sueño, comparaciones entre usuarios, adicción a la red, ciberbullying, asilamiento social?
¿Se siente ansioso, nervioso, deprimido o aburrido cuando no está conectado al internet?

¿Con qué frecuencia durante el último año ha tratado de reducir el uso de las redes sociales sin éxito?