Exploratory Study: Social Media Impact on Mental Health Perception in Colombian Gen Z

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Abstract: This exploratory study aimed to discern and comprehend the social media usage patterns and their perceived impact on mental health among Generation Z students at a Colombian university. Employing a mixed methods approach, data were collected from 361 Colombian Gen Z individuals. A focus group guide and a self-reported questionnaire, informed by focus group results, were utilized to evaluate diverse constructs. Qualitative data underwent iterative categorization (IC), while quantitative data underwent statistical analysis using SPSS software. Participants predominantly utilized social media for communication and entertainment, with indications of a link between social media use and anxiety. However, participants did not perceive social media as significantly influential in their decision-making processes or relationships. Notably, female participants reported higher anxiety levels. This study of Colombian Gen Z freshmen unveiled social media's notable influence on body image, mental health, and social rewards. It underscores the necessity for tailored interventions to foster positive online experiences, address gender-specific challenges, and reassess brand engagement strategies within this demographic. Additionally, it highlights the need for further research within the Colombian university context. Though the employed instrument exhibited acceptable validity and reliability levels, future research could benefit from enhancements. This paper represents the initial endeavor to analyze social media consumption among Generation Z in Colombia through a mixed methods approach. Examining social media consumption patterns and their impact on mental health contributes to academic discourse on this relationship, informing the design of appropriate pedagogic strategies while considering reported gender differences. This study contributes valuable insights into the intricate interplay between social media use and mental health among Colombian Gen Z students. Addressing these dynamics is pivotal in formulating targeted interventions and strategies to support the mental well-being of this demographic within university settings. Future investigations should focus on refining measurement tools and delving deeper into nuanced aspects of social media's influence on mental health within educational environments.

Keywords: Generation Z, Social media apps consumption, Mental health perceptions, Colombia, Social networks, Anxiety

1.   Introduction

Several studies report global mobile phone usage at 68% and active social media engagement at 59% of the total population (DataReportal, 2023; Broadbent et al, 2017). Colombians spend an average of 9 hours daily online, ranking fourth globally (Pasquali, 2020). Specifically, Colombia ranks second for social media exposure, averaging 3 hours 46 minutes daily (Roa, 2019, 2021), which is significantly higher than the global average of 1 hour 15 minutes (Melo, 2023). This high exposure underscores the necessity for a deeper understanding of social media consumption among Colombian youth, and how it could be vital for businesses, policymakers, and educational institutions.

Generation Z, succeeding Generation Y, refers to the population born spanning the mid-1990s to mid-2000s (Dwivedula et al, 2019, p. 11). They exhibit unique traits, including realism, skepticism toward institutions, and a strict work-life separation (Bontekoning, 2019; Gentina, 2019). This group are of particular interest to researchers as they can be considered the first global cohort due to their digital immersion, regional studies, like those in Europe, contribute to a nuanced understanding of media influence (Vyugina, 2019; Scholz and Rennig, 2019). Despite general trends have been found, differences across cultures demand further exploration (Allahverdi, 2022; Davison et al, 2023).

Amid concerns globally about rising social media addictions, comprehending Generation Z's consumption patterns becomes crucial (Salo et al, 2018). Exploring their interactions with social media—how it influences their behavior, entertainment, and mental well-being—is essential (Davison et al, 2023). However, cultural variations necessitate diverse population studies (Salo et al, 2018). Researchers advocate for mixed methods to mitigate social desirability bias, underscoring the need for a balanced approach (Fisher, 1993; Salo et al, 2018).

This study aims to probe into Generation Z's social media usage patterns and its impact on mental health at a Colombian university, employing an exploratory mixed methods approach.

2. Literature review

2.1 Connecting Social Influence and Gratification Theories to Life Satisfaction in the Age of Social Media

Life satisfaction is regarded as a fundamental aspect of well-being (Vate-U-Lan, 2020). People inherently seek social interaction, with social ties often serving as an indicator of both life satisfaction and well-being (Valenzuela et al, 2009; McLaughlin et al, 2010). The advent of social networks has greatly facilitated human interaction, resulting in an increased global user base (Raza et al, 2020). It is plausible that individuals who actively engage on social networking platforms experience greater feelings of connectedness and heightened levels of satisfaction and well-being. Therefore, it is conceivable that college students with lower life satisfaction may increase their interaction on social networks, thereby experiencing enhanced well-being and increased social confidence (Valkenburg et al, 2006; Ellison et al, 2007; Valenzuela et al, 2009).

The social influence theory (Kelman, 1958) posits that an individual's behaviour is significantly influenced by the collective behaviour of society, indicating a profound societal impact on an individual's actions. The gratification theory (Blumler and Katz, 1974; Blumler, 1979) outlines how people utilize different media to fulfil various needs, including the pursuit of entertainment and relaxation, maintenance of personal relationships, self-discovery, and identity formation, and staying informed about current events. Understanding these needs and the degree of satisfaction provided by various media channels, including social networks, is vital (Currás-Pérez et al, 2013).

2.2 Generation Z, Their Social Media Consumption and Vulnerability to Negative Health Effects

Generation Z is arguably the most internet-dependent generation and the primary users of social networks. Since their inception, social networks have been developed to connect people worldwide, regardless of their location. This rapid development has significantly influenced and changed the communication habits of Generation Z, shaping their interactions through the internet. In terms of social media consumption, several studies have found that among the youngest European group, WhatsApp, YouTube, TikTok, Snapchat, and Instagram are the most popular platforms (Bontekoning, 2019; Gentina, 2019). On the other hand, American Generation Z relies on Instagram and Twitter as their main platforms for staying informed and keeping up with others (Seemiller and Grace, 2016, 2019). Interestingly, Generation Z students only use Facebook in a marginal way. It appears that the presence of their parents and family members on this social network is a significant factor influencing this behaviour. Several studies have indicated that Facebook is predominantly used by parents (Generation X and Baby Boomers) and is no longer considered relevant for Generation Z (Scholz and Rennig, 2019, p. 280; Seemiller and Grace, 2019).

In the Colombian context, recent studies report that 67% of Gen Z engage with brands to influence product innovation, and 71% only buy from brands they trust completely. Of the 33% who prefer to be anonymous online, 63% said they actively manage data sharing and privacy settings according to their preferences; this includes 63% of Gen Z. Furthermore, many Colombian consumers place great value on the appearance of personal success and achievement. Twenty-seven percent of respondents express this sentiment, a figure consistent with the global average. Additionally, 24% of Colombian Gen Z consumers prefer to use a brand or company's social media account or website to find information about a brand or product. Furthermore, 39% of Colombian Gen Z feel that more of their everyday activities will shift to in-person interactions in the future (Euromonitor International, 2023).

However, previous research has demonstrated that compulsive social media use still has a significant impact on physical and mental health, including sleep, affect, self-esteem, well-being, and overall functioning, particularly among adolescents (Cheng and Li, 2014; Li et al, 2023; Turel et al, 2016). Furthermore, the adverse effects of increased reliance on social media can have long-lasting consequences at the individual level. As social media has become a primary source of information, particularly during the pandemic, users across different age groups, and especially Generation Z, have become more vulnerable to issues such as misinformation, loneliness, anxiety, envy, narcissism, and depression (Andreassen et al, 2017; Singh et al, 2020).

There is a gap in the literature concerning the controversies surrounding the nature and outcomes of the primary uses of social media (Davison et al, 2023). Some studies suggest that following other people on social networks can serve to maintain interpersonal connections, but it can also transform into digital voyeurism (Mäntymäki and Riemer, 2014, 2016). Furthermore, research on the relationship between social anxiety and social media use remains inconclusive, as highlighted by Erliksonn et al (2020). They advocate for the utilization of self-report measures specifically adapted to the context of social media, which could enhance research efforts.

3. Methodology

The methodology for this exploratory study followed a mixed methods approach, starting with a qualitative phase to inform the design of the questionnaire. The aim was to identify usage patterns and gain insight into social media consumption among Generation Z and their perceptions regarding mental health implications at a Colombian University. The combination of qualitative and quantitative insights helped construct a more holistic understanding of the complexities that surround Generation Z's perceptions of mental health in the Colombian context.

3.1 Qualitative Methods

3.1.1 Data collection

For the qualitative phase, a focus group was conducted with seven freshmen students aged between 19 and 20 years old. A purposive sampling method was used as participants needed to meet specific criteria related to social media usage. The focus group utilized projective techniques, including sentence completion and third-person questions. A total of 31 questions were asked, with a focus on understanding the participants' perceptions of social network use, potential mental health implications, and the impact of social networks on social interactions. A $10 financial incentive was raffled among all participants. Initially, three focus groups were planned, one with freshmen and the other with senior students. However, due to insufficient participation, only one focus group was held.

3.1.2 Analysis of the focus group

For the focus group analysis, the entire session was first transcribed. Then, during the review of the transcript, recurring and important themes that emerged from the participants were identified (Smithson, 2000). The iterative categorization (IC) technique is applicable for both inductive and deductive coding and can accommodate various analytical methods employed in research, such as thematic analysis, content analysis, and narrative analysis (Neale, 2016). This iterative process allows findings to emerge from the participants' discourse (Neale, 2016; Srivastava and Hopwood, 2009), which are then coded.

3.2 Quantitative Methods

3.2.1 Measures

For the quantitative phase, a questionnaire with 39 questions was administered through the Qualtrics platform. The purpose of this questionnaire was to gather insights into individuals' ideas and perceptions regarding the subjective levels of anxiety and isolation caused by excessive use of social networks, in relation to mental health and social interactions. The questionnaire included items on demographic data, the selection of potential mental impairments associated with social networks, and scales ranging from 3 to 10 categories to measure these constructs (Davison et al, 2023). As there was no validated questionnaire available in Spanish for the constructs to be assessed, part of the proposal by Critikián and Núñez (2021) was used as a criterion. Additionally, some items and scales were adapted from other studies (Anderson and Wood, 2023; Davison et al, 2023).

Our sample consisted of 361 participants recruited also through purposive sampling to meet the criteria of social media use. Out of 393 questionnaires, 9 participants were excluded as they reported not being social network users, 7 participants claimed to be social network users but did not answer any questions about their usage, and 16 participants did not complete the questionnaire, resulting in a total of 361 responses analysed. Table 1 provides a summary of the participants' demographics. Statistical analyses were conducted using SPSS version 26 software.

Table 1: Participant demographic characteristics (n=361)

Characteristic	n°	% of n
Age		
Less than 18	48	13.30%
18 -20	132	36.57%
20 -23	74	20.50%
More than 23	107	29.64%

Characteristic	n°	% of n
Gender		
Female	196	54.29%
Male	161	44.60%
No binary/other	2	0.55%
Prefer don't say	2	0.55%

4. Results

4.1 Qualitative Results

Based on the focus group analysis, several key findings have emerged:

1. The use of social media by participants, primarily to present their idealized image and alleviate boredom.
2. The influences of social networks on young people. Interestingly, they tend to deny high influence on Gen Z and perceive themselves as mature individuals.
3. Possible effects on mental health, which can be attributed to inadequate emotional management and immaturity.

4.1.1 Main Findings

All participants agreed that social interactions predominantly occur through social networks. However, they acknowledged that these interactions could involve information manipulation and the presentation of an idealized image. Nestor (Male, 20, #3) stated:

Thanks to social networks, people have been able to socialise more and expand their social circle. However, personal relationships are much stronger face-to-face, as they allow for emotional ties to be established.

The participants recognized that social networks could perpetuate the idea of a "perfect life" by allowing individuals to modify their lives and physical appearance. Silvana (Female, 20, #4) expressed:

People seek to show a life, which in most cases is not the real one, with the sole purpose of having social acceptance or demonstrating different aspects of life to an audience that may not be completely known.

While the participants acknowledged that social networks and digital media could potentially influence everyday decisions, they did not consider them as determinants or causes for their actions. They did not believe that social networks have a significant influence on their lives. Silvana (Female, 20, #4) elaborated:

The fact that social networks do not possess influence in the personal lives of their users is acquired over time; this is because when you start using social networks at a young age, the influence is much greater, either in terms of the number of likes or the appearance of people on them. However, as time goes on, people start to acquire their own style and get into the mindset that they should be accepted for who they are and how they are.

Participants expressed the belief that younger individuals, such as children or adolescents, are more susceptible to influence due to their limited personal development and maturity. Consequently, social networks do not exert a significant influence on their daily lives.

When interviewees were questioned about how social networks could affect users' mental health, most effects were attributed to inadequate emotional management and insufficient maturity to cope with the various aspects associated with social network use. Carlos (Male, 19, #5) stated that:

People who are still in the process of maturing and use social networks may not have fully established what they seek in life. When they see influencers presenting perfect bodies or lives, these individuals can experience mental health issues. Modifying social media content to project a perfect life, without sufficient maturity or emotional management, can negatively affect users' mental health and self-image.

Regarding the duration of social network usage, respondents reported spending approximately 4 to 6 hours a day, which can extend up to 10 hours, particularly when they feel bored. Carlos (Male, 19, #5) commented:

Most of the time, social networks are used as a means of distraction during moments of boredom.

Social networks can contribute to self-comparison among young people. All participants agreed that many young individuals compare themselves and desire the physical appearance of others due to societal beauty standards and the desire for social acceptance. Carlos (Male, 19, #5) emphasized this issue, explaining:

When observing different individuals, including their physical appearance and body shape, many people develop a desire to possess the same physical attributes. Society instils numerous stereotypes regarding beauty and social acceptance.

The study further explored the mental health effects of social networks by engaging participants in a sentence completion task. The results indicated that the participants associated the effects with stereotypes and insecurities, while another linked them to depression. Additionally, respondents identified anxiety problems as the primary cause, and connected them to self-esteem issues. Thus, according to participants' perspectives, anxiety problems and self-esteem issues emerged as the predominant factors impacting mental health.

Finally, participants shared their overall perspectives on social networks, acknowledging both the advantages and disadvantages that arise from their use, which depend on how individuals engage with them, their maturity, and their age. Interviewees recognized the awareness people have regarding the implications of using social networks and the changes that have occurred in social interactions in today's society. The frequent use of electronic devices has had an impact on social relationships. Silvana (Female, 20, #4) expressed:

Within contemporary society, social paradigms cannot be completely eliminated, as they are an inherent and enduring factor in our social fabric.

4.2 Quantitative Results

4.2.1 Reliability and factor analysis

To assess the reliability and validity of the data set and instrument, Cronbach's alpha measure of internal consistency (Cronbach, 1951) was utilized to determine the construct's alpha value. For exploratory studies, a value of 0.6 is deemed acceptable (Garson, 2013; Hair, 2019; Hoque et al, 2018; Nunnally, 1975). With a Cronbach's alpha coefficient of 0.635, surpassing the threshold of 0.6, the required reliability for the model is achieved. An exploratory factor analysis (EFA) test was conducted to validate the questionnaire. The Kaiser-Mayer-Olkin (KMO) index was 0.64, exceeding the recommended value of 0.6 (Kaiser, 1970), and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($\chi2$ =3,519.69, p<.001), indicating that our data were suitable for factor analysis. The results of the initial analysis revealed six factors with Eigenvalues over 1, explaining 10.50%, 10.05%, 9.22%, 7.71%, 5.46%, and 5.1% of the variance, respectively. The reliability of the derived factors from the validity analysis is presented in Table 2.

Table 2: Descriptive statistics and construct reliability

Components/constructs	M	Sd	Cronbach's α
Frequency of use	2.166	0.299	0.28
Level of anxiety/insecurity	2.571	1.904	0.74
Use of social networks	3.047	0.849	0.35
Social isolation and beliefs	4.120	0.781	0.60
Favorite social networks	3.902	1.220	0.75
Level of satisfaction	4.029	0.911	0.82

Note: acceptable Cronbach's alpha coefficient >.6

4.2.2 Correlation analysis

To examine the relationship between the time of use and beliefs regarding social network usage, specifically in relation to anxiety and social isolation, a Pearson correlation analysis was conducted. In terms of the number of followers, young individuals demonstrated a positive correlation between a higher number of followers and the duration of their presence on the social network (r = 0.138, p = 0.009), as well as their daily usage of social networks (r = 0.247, p < 0.001). Conversely, a lower sense of isolation when interacting face-to-face with others was associated with a larger number of followers (r = -0.119, p = 0.025).

Regarding the daily use of social networks, there was an inverse association with the perception of isolation resulting from social network usage (r = -0.204, p < 0.001), as well as the belief in increased problems related to depression, anxiety, and self-esteem (r = -0.127, p = 0.016). Moreover, young individuals associated feelings of isolation on social networks with an increased belief in depression, anxiety, and self-esteem problems (r = 0.223, p < 0.001), as well as the belief in isolation during face-to-face interactions with others (r = 0.225, p < 0.001). Additionally, both beliefs in increased problems and isolation demonstrated a strong positive correlation (r = 0.499, p < 0.001).

Subsequently, the same perceptions of young individuals were assessed in relation to self-reported anxiety levels. In the context of social networks, particularly Instagram, young individuals reported higher levels of anxiety and insecurity with increased daily use (r = 0.170, p = 0.001). Similar findings were observed for TikTok (r = 0.157, p = 0.003), along with a stronger belief in anxiety correlating with a higher number of followers (r = 0.127, p = 0.016). Furthermore, Twitter (r = 0.105, p = 0.048), Pinterest (r = 0.201, p < 0.001), and WhatsApp (r = 0.115, p = 0.030) also showed a positive association between increased daily use and higher perceived anxiety and insecurity among young individuals. Conversely, YouTube demonstrated a negative correlation between belief in anxiety and insecurity and the amount of time spent on the platform (r = -0.135, p = 0.010). Notably, young individuals did not establish any significant relationship between these perceptions and anxiety or insecurity while using Snapchat.

4.2.3 Sex and gender differences

To examine potential sex and gender differences, a t-test was conducted to compare the perceptions of social beliefs and social isolation between males and females. Participants who did not indicate their gender or identified as non-binary were excluded from the analysis due to the small number of participants, as indicated in Table I. Gender exhibited statistically significant differences in perceptions of social isolation caused by social networks, with women (M = 4.40, SD = 0.783) scoring higher than men (M = 4.21, SD = 0.912), t(df = 353) = 2.154, p = 0.032, d = 0.230. However, no sex differences were observed in beliefs regarding increased problems associated with social networking or in feelings of isolation during face-to-face interactions.

The perceived level of anxiety for each social network was then assessed. Females reported a higher level of anxiety perception (M = 3.65, SD = 3.225) compared to males (M = 2.88, SD = 3.226) for TikTok, t(df = 355) = 2.154, p = 0.025, d = 0.239, and Pinterest (female, M = 1.41, SD = 2.459; male, M = 0.65, SD = 1.424), t(df = 355) = 3.651, p < 0.001, d = 0.370. Conversely, for Twitter, males reported a higher level (M = 2.62, SD = 3.132) of anxiety compared to females (M = 1.70, SD = 2.844), t(df = 355) = -2.862, p = 0.004, d = -0.308.

5. Discussion

Participants highlighted the adaptability of social networks in moulding lives and appearances to match convenience, aligning with research by Valencia et al (2021) and Burnell et al (2022). These studies assert societal beauty standards drive the use of filters to modify appearances. Internet and social media impact young minds, fostering impulsivity and hampering inhibitory functions (Patil et al, 2021), potentially fuelling desires to conform to evolving beauty norms (Burnell et al, 2022).

However, Critikián and Núñez (2021) and Martínez-Martínez et al (2022) underscore a contradiction in perceptions. Social networks induce rapid gratification, triggering a sense of satisfaction akin to reinforcing events (Xu et al, 2022). Positive social rewards may drive increased social media usage among youth (Anderson and Wood, 2023), influenced by factors such as gender and parental involvement (Keresteš and Štulhofer, 2020). Investigating this contradiction is imperative.

Participants raised mental health concerns stem from the interplay of anxiety and low self-esteem, where low self-esteem fuels anxiety (He, 2022; Vahedi and Saiphoo, 2018). Extensive social media use is linked to diminished health-related quality of life (Davison et al, 2023).

Moreover, participants reported using social networks during boredom, an area underexplored concerning its impact on well-being (Huang, 2017). Usage time correlates more strongly with loneliness than self-esteem, indicating a need for further studies on its relation to life satisfaction, an indicator of psychological well-being.

Raza (2020) notes social identity's role in bolstering self-esteem among college students, driving their social network usage. Gender disparities in network use are linked to social relationships, body image, cyberbullying, and lower physical activity among females during adolescence (Keresteš and Štulhofer, 2020).

Surprisingly, contrary to expectations (Ismail et al, 2021), participants did not express brand engagement or purchase intentions through social media. Instead, they associated influence with negativity and immaturity.

This research reveals the intricate interplay between social media usage patterns and social rewards, particularly among Colombian Gen Z college students. The insights gained can inform the development of tailored interventions and strategies to foster mindful and balanced social media usage within the university setting. Educators' involvement in designing intellectually stimulating activities could prevent boredom in the learning process.

Identifying gender-specific challenges related to social media usage among Colombian Gen Z university students, such as preoccupation with body image and experiences of cyberbullying, underscores the need for gender-specific support mechanisms and inclusive online environments in Colombian universities.

In conclusion, participants' insights illuminate the flexible nature of social networks in shaping lives and appearances, revealing contradictions in their perceived impact on satisfaction and mental well-being. Addressing these inconsistencies requires further scholarly attention.

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