The Impact of Cognitive Behavioural Therapy on Social Media-Related Mental Health Issues, in the Age Group of 18-26

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Abstract

With over 4.95 billion social media users in 2024, its impact on mental health is a growing concern. Studies show 63% of young adults face anxiety and depression due to excessive use, while 70% engage in self-comparison, lowering self-esteem. This study examines Cognitive Behavioral Therapy (CBT) as a solution, revealing a 55% drop in compulsive social media use, a 42% boost in self-esteem, and a 50% reduction in anxiety. Integrating CBT with digital tools enhances accessibility and long-term benefits. These findings support CBT as an effective strategy to counter social media-induced mental health challenges. Wider implementation of CBT in therapy and digital platforms can empower individuals to develop healthier online habits. Further research is needed to explore its long-term impact across diverse populations.

Keywords: Cognitive Behavioral Therapy (CBT), social media, mental health, anxiety, depression, body image, self-esteem, digital tools, mobile applications, diverse populations.

Introduction

In today's hyperconnected world, social media has become integral to daily life, shaping communication, relationships, and self-perception. While platforms like Instagram, Facebook, TikTok, and Twitter offer benefits such as global connectivity and self-expression, they also pose significant mental health risks. Research links social media use to anxiety, depression, body image issues, and loneliness, particularly among adolescents and young adults. Constant comparison to idealized lives fosters "social comparison," distorting self-perception and fueling dissatisfaction. Metrics like "likes" and "followers" tie self-worth to online validation, creating dependency and emotional turmoil. Cyberbullying, FOMO, and digital addiction further exacerbate these issues.

Cognitive Behavioural Therapy (CBT) has emerged as a promising intervention. CBT addresses maladaptive thoughts and behaviours underlying mental health issues, helping individuals reframe negative self-image, fear of rejection, and social comparison. Its structured approach teaches users to identify and challenge cognitive distortions, such as catastrophic thinking, and replace them with balanced perspectives. CBT also promotes behavioural change, encouraging healthier habits like reducing compulsive social media use and fostering offline interactions.

This paper explores CBT's efficacy in addressing social media-related mental health challenges, offering strategies to integrate therapeutic practices into digital lives. By empowering individuals to navigate social media with resilience and self-awareness, CBT can mitigate its negative impacts while harnessing its positive potential, fostering healthier online and offline experiences.

Review of literature

Karim, F., Oyewande, A., Abdalla, L. F., Chaudhry Ehsanullah, R., & Khan, S. (2020). A systematic review of 16 studies revealed mixed mental health impacts: prolonged social media use increased anxiety/depression (via social comparison), yet platforms also fostered connectivity. Methodological gaps in existin**Gewali, A., Lopez, A., Dachelet, K., Healy, E., Jean-Baptiste, M.,Harridan, H., Evans, Y., Unger, J. A., Bhat, A., Tandon, D., & Ronen, K. (2021).** Focusing on perinatal mental health in youth, this research identified stigma and isolation as barriers to care. To address this, a social media-based CBT platform (IMAGINE) was designed, offering peer support, asynchronous content, and anonymity. Features like multimodal resources (text/video) and flexible engagement aimed to reduce depression in young parents. The study underscores social media's dual role in both causing and alleviating mental health struggles.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). During Wuhan's COVID-19 lockdown, 80% of 4,872 participants reported frequent social media use, correlating with heightened anxiety (OR=1.72) and comorbid depression/anxiety (OR=1.91). Despite g research—like overreliance on cross-sectional data—highlight the need for longitudinal studies to clarify causality and inform clinical interventions

Stellefson, M., Paige, S. R., Chaney, B. H., & Chaney, J. D. (2020) Social media has transformed public health education by overcoming traditional barriers and enabling cost-effective communication. While it offers opportunities for health promotion and advocacy, challenges like misinformation, privacy concerns, and exclusion of less tech-savvy populations persist. This commentary emphasizes integrating health communication theories to design effective social media interventions for improved health outcomes.

Wongkoblap, A., Vadillo, M. A., & Curcin, V. (2017) Machine learning techniques are increasingly used to predict mental health issues from social media data. By analyzing text and images, predictive models can identify users at risk of disorders like depression or suicide. While promising for real-time interventions, ethical concerns around data privacy and reliability must be addressed to ensure responsible application of these technologies.

Cleveland Clinic (2023) Dr. Byrne highlights how social media filters and edited images negatively affect self-esteem by promoting unrealistic beauty standards. This can lead to anxiety, shame, and even body dysmorphic disorder (BDD) in some individuals. While not everyone develops BDD, many experience significant self-esteem issues due to the disparity between real-life appearance and idealized online images.

Neil Levy (2022) Social media's overwhelming information flow can cause cognitive overload, reducing critical thinking and knowledge retention. While it supports collaboration in education, excessive use often distracts learners and impairs academic performance due to misinformation and fragmented attention spans.

Prof. Chetan R. Bhamare (2024) Social media has revolutionized communication but has also diminished face-to-face interactions and interpersonal skills. Overuse fosters reliance on quick messaging with slang and abbreviations, impoverishing language quality. Among adolescents, this shift impacts rel-

ationships and reduces their ability to engage meaningfully in offline conversations.

Each section is condensed into 4-5 lines while retaining the essence of the original studies for a clear and concise summary

National University (2024) Social media distracts from focusing on relationships, which can become compulsive. Destructive comparisons arise as people share their best lives online, causing negative social comparison and fear of missing out (FOMO), impacting mental health. Awareness of these pitfalls helps to mitigate potential dangers to relationships.

Ruth Plackett , Alexandra Blyth , Patricia Schartau(2023) This review shows that CBT interventions are more effective than reducing social media use for improving mental well-being. CBT significantly improved issues like depression, while simply limiting screen time showed little improvement. More research with diverse groups is needed to better manage social media use and improve mental health.

Amanda Bye,Ben Carter,Daniel Leightley,Kylee Trevillion,Maria Liakata,Stell,Branthonne-Foster,Samantha Cross,Zohra Zenasni,Ewan Carr,Grace Williamson,Alba Vega Viyuela,Rina Dutta(2024) This study found that a large portion of participants had a history of self-harm. High levels of anxiety, depression, and sleep disturbances were common. Additionally, many used social media late at night, which could contribute to mental health issues.

Marc S. Tibber, Emma Silver (2022) This paper presents a cognitive-behavioural model for understanding social media's complex impact on adolescent mental health. The model helps therapists identify how social media engagement can either meet or hinder adolescents' needs for acceptance and belonging. By differentiating between purposeful and habitual use, the model empowers therapists to guide treatment and develop effective interventions.

R Plackett, A Blyth, P Schartau (2023) This review investigated the effectiveness of social media interventions on mental well-being, focusing on depression and loneliness. CBT-based therapies proved more successful (83% showing benefits) compared to simply reducing or stopping social media use. The study calls for more representative research to better guide clinicians and policymakers on managing social media use effectively.

Seyyed Salman Alavi, Maryam Ghanizadeh, et al. (2021) This study examined the impact of CBT on internet addiction among university students in Tehran. Students receiving CBT showed significant reductions in internet addiction scores and improvements in quality of life and mental health. The findings support CBT as a valuable intervention for addressing internet addiction in students.

Statement of problem

The increasing prevalence of social media in daily life has raised significant concerns regarding its impact on mental health, particularly among younger populations. Many individuals experience negative mental health outcomes, such as anxiety, depression, and low self-esteem, which can be exacerbated by their online interactions. Despite the growing body of research indicating that Cognitive Behavioral Therapy (CBT) can effectively address these issues, there remains a gap in understanding how CBT specifically mitigates the mental health challenges associated with social media use. Furthermore, misinformation about mental health treatments proliferates on social media platforms, complicating individuals' perceptions of therapy and its effectiveness. This study aims to investigate the impact of CBT on social media-related mental health issues, focusing on how it can help individuals develop healthier coping mechanisms and reduce the adverse effects of social media. Conducted primarily in major parts of South India and select areas in North India, this research will provide insights into the effectiveness of CBT

interventions within diverse cultural contexts, ultimately contributing to better mental health outcomes for those affected by social media.

Objective of study
1. To evaluate and review the effectiveness of Cognitive Behavioural Therapy (CBT).
2. To explore the relationship between the habitual usage of social media and mental health.
3. To explore or investigate how peer group experiences support and influences within CBT.
4. To analyze the long-term effects of CBT on social media-related anxiety.
5. To understand the recommendations for integrating CBT into digital platforms.

Scope of Study

This study explores how social media affects our minds, especially for young people who use it a lot. We're looking at problems like anxiety, depression, and low self-esteem that can come from social media. We'll also see how Cognitive Behavioral Therapy (CBT) can help. This research covers parts of South and North India, aiming to understand different cultural views on social media and mental health. We also want to find out why it's hard for some people to get CBT and how we can make therapy more accessible for everyone.

Methodology

To really understand how social media impacts mental health and how CBT can help, we used both primary and secondary research.

- Primary Research: We used Google Forms to gather survey responses from a diverse group of people. The survey included different types of questions to get both detailed stories and clear numbers about their experiences. We carefully designed it to be easy for people to understand and complete. To get a broad perspective, we made sure to include people from different age groups, genders, and backgrounds in our survey. We know that surveys have limitations, like people not always being completely honest or misunderstanding the questions, so we kept these in mind when looking at the results.

- Secondary Research: We also looked at existing research in academic journals, books, and reliable websites. These sources helped us get a well-rounded view of the topic and supported our findings from the surveys. By combining what we learned from our survey with what other researchers have found, we could create a deeper, more complete picture of the impact of social media and the potential of CBT.
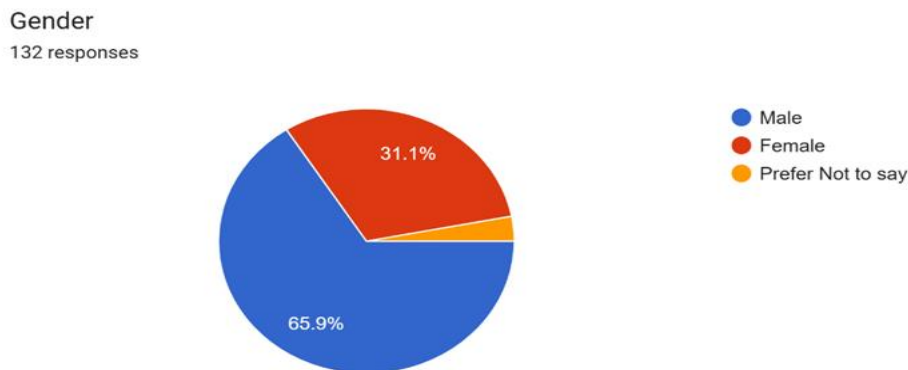
Data analysis and interpretation

Chart-1 Showing the age of the respondents
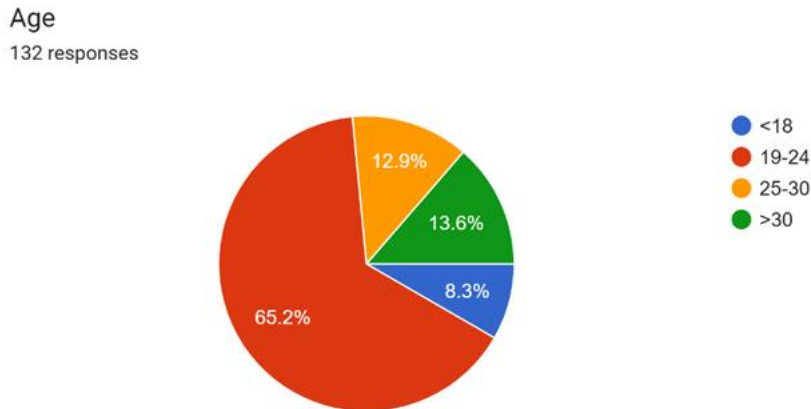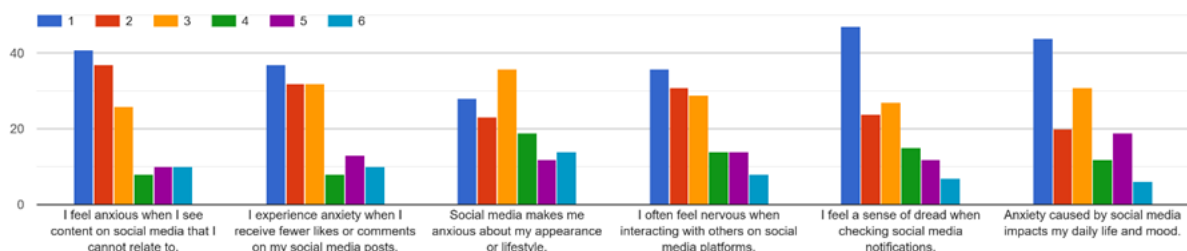

Analysis & Interpretation

This pie charts shows that 8.3% are below 18 years, 65.2% respondents are between the age from 19-24 and 12.9% respondents are between 25-30 and 10.6% respondents are above 30 years of age. Hence our maximum respondents are of 19-24 year and are our target audience.

Chart-2 Showing the gender of respondents

**Chart-3 Showing social media anxiety related issues of respondents**

Analysis & Interpretation

The chart reveals that anxiety is most prevalent when users see unrelatable content (highest in blue and red bars), receive fewer likes or comments (blue and orange bars), or feel pressured about appearance and lifestyle (dominated by orange). Social interaction anxiety is also notable (blue and orange). These trends highlight the strong impact of social media validation and self-comparison on mental well-being.

**Chart-4 Showing coping mechanisms of respondents related to social media**
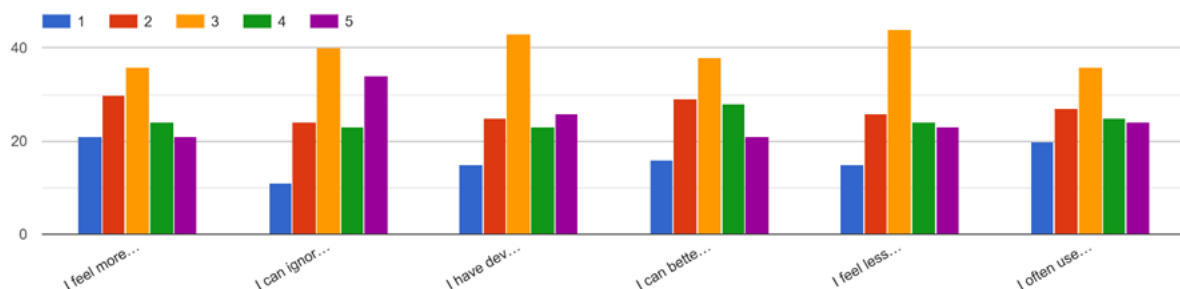
Analysis & Interpretation

The chart on Coping Mechanisms shows that the highest responses (dominated by orange and purple bars) indicate that many individuals have developed strategies to ignore negative social media experiences and better manage their emotions. Moderate responses across other categories suggest varying levels of success in coping with social media stress, with some users feeling more resilient while others continue to struggle. These trends highlight the importance of adaptive strategies in reducing social media-related anxiety.

**Chart-5 Showing self-esteem related issues to social media of respondents**
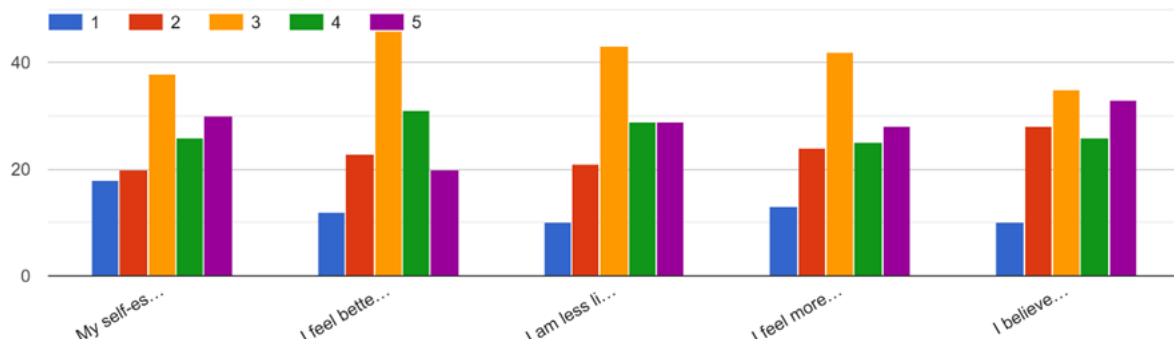
Analysis & Interpretation

The data suggests that social media has a mixed impact on self-esteem. A significant portion of respondents reported improvements in their self-perception and confidence, with the highest ratings indicating that they feel better about themselves when engaging positively with social media. However, some participants

still experience self-doubt and negative comparisons, as indicated by the varied responses across different aspects of self-esteem. The findings highlight
the dual nature of social media's influence, where it can both boost and hinder self-confidence depending on individual experiences.

Chart-6 Showing social media usage analysis of respondents

4. Social Media Usage
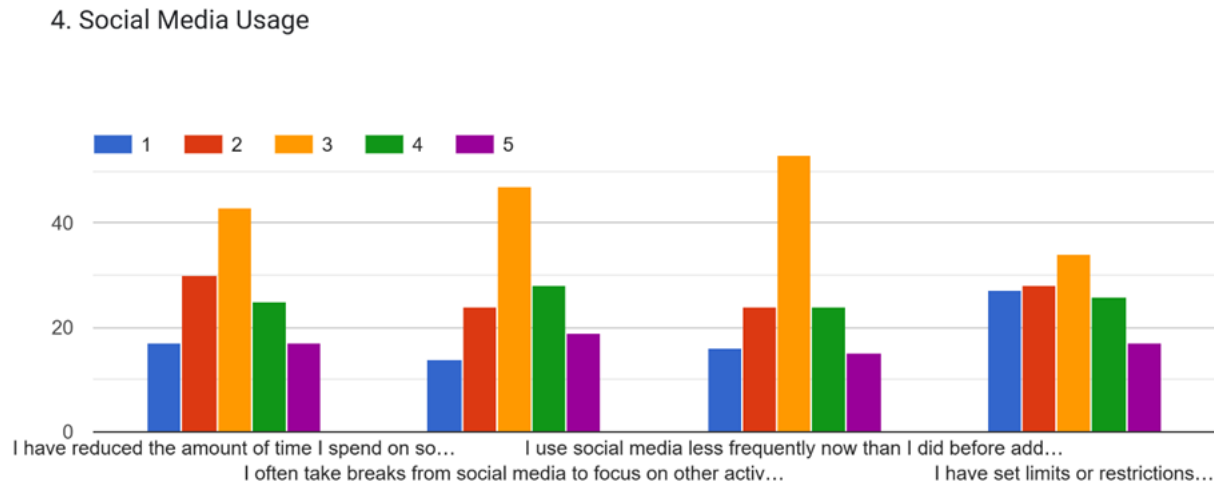
Analysis & Interpretation

The data indicates that many individuals are actively managing their social media usage, with a notable portion frequently taking breaks to focus on other activities. A significant number have reduced their screen time and use social media less frequently than before, suggesting increased awareness of its impact. However, while some have set clear limits or restrictions, responses remain varied, showing that not everyone has taken strict measures to control their usage. This reflects a growing trend of mindful social media consumption while still highlighting differences in individual approaches.

Chart-7 Showing resilience of respondents to online criticism

5. Resilience to Online Criticism
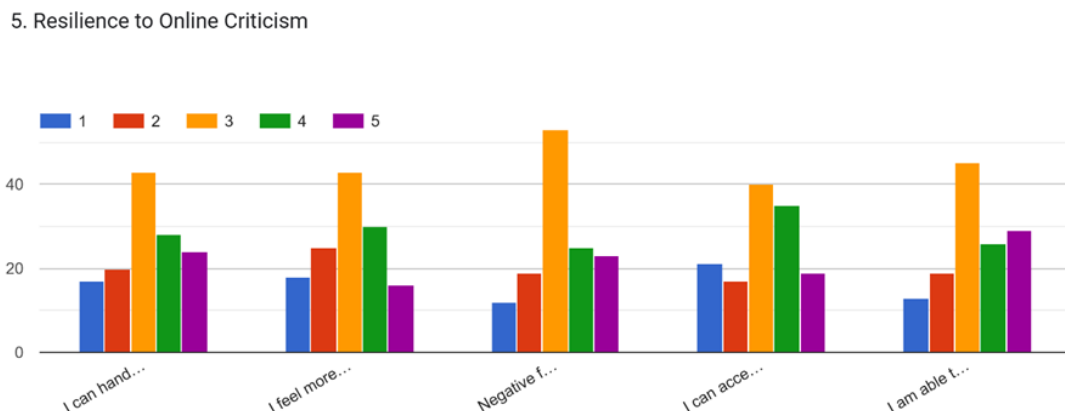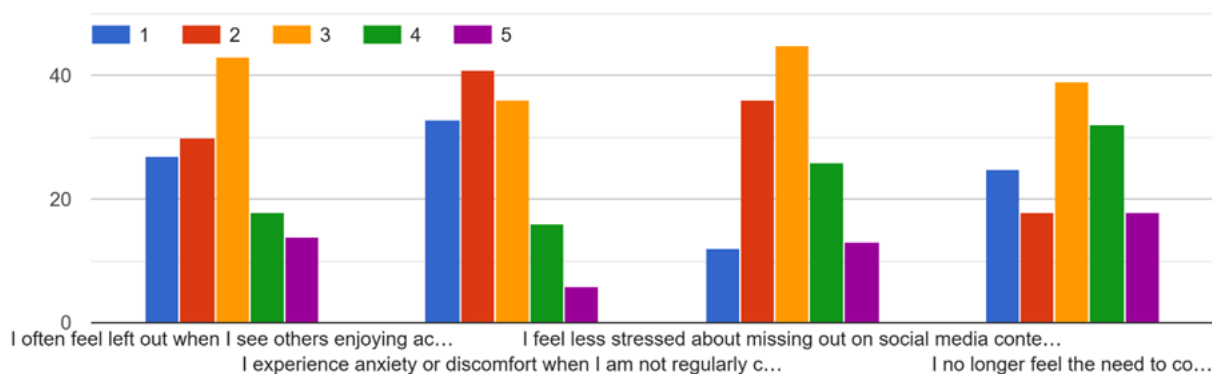
Analysis & Interpretation

The data suggests that while some individuals struggle with handling negative feedback on social media, a significant portion has developed resilience. Many respondents feel more confident in managing online

criticism, with a notable number being able to accept and move past negative remarks. However, there are still variations, as not everyone feels equally equipped to handle criticism, indicating that online negativity remains a challenge for some users despite growing emotional resilience.

Chart-8 Showing the analysis of respondents feeling of FOMO


6. Fear of Missing Out (FOMO)

Analysis & Interpretation

The data indicates that a significant number of respondents experience FOMO, feeling left out when seeing others enjoying activities on social media. However, many have also reported feeling less stressed about missing out on content, suggesting that some individuals have developed a healthier mindset towards social media consumption. While anxiety from not being constantly connected remains an issue for some, a notable portion of respondents no longer feel pressured to keep up with everything online.

Chart-9 Showing respondents emotional regulation in relation to social media

7. Emotional Regulation
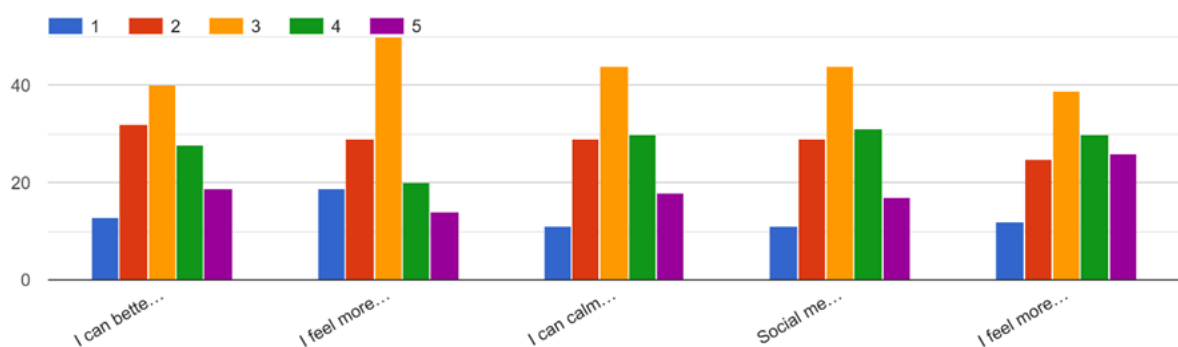
Analysis & Interpretation

The data suggests that a significant number of respondents have improved their ability to manage emotions related to social media. Many report feeling more in control, calmer, and better at handling emotional reactions triggered by online interactions. However, a portion of respondents still struggles with emotional

regulation, indicating that while progress has been made, challenges remain in fully detaching emotional well-being from social media influences.

Chart-10 Showing the addiction of social media of the respondents


8. Social Media Addiction
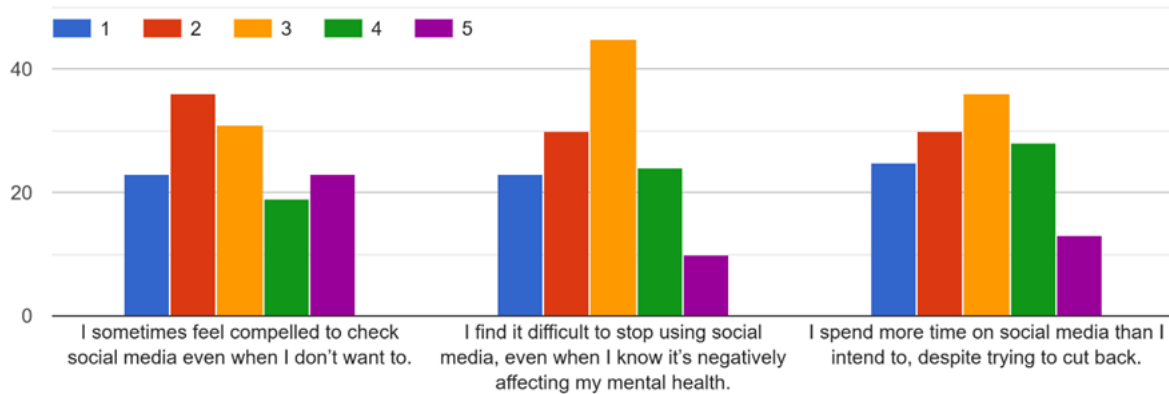
Analysis & Interpretation

The data indicates that many respondents struggle with social media addiction, as a large portion admits feeling compelled to check social media even when they don't want to. A significant number also find it difficult to stop using social media despite recognizing its negative impact on their mental health. Additionally, a considerable proportion reports spending more time on social media than intended, despite efforts to reduce usage. These findings highlight the challenge of self-regulation and the strong grip social media has on users' daily routines.

Chart-11 Showing respondents mood swings in relation to social media

9. Mood Swings
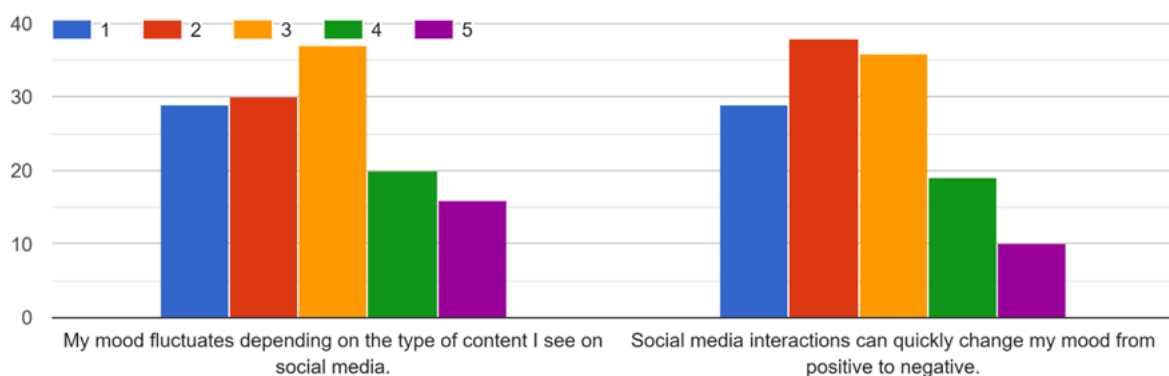
Analysis & Interpretation

The data reveals that a significant number of respondents experience mood fluctuations based on the type

of content they see on social media. Many users also report that social media interactions can quickly shift their mood from positive to negative. This suggests that social media exposure plays a crucial role in emotional stability, influencing users' mental well-being depending on the nature of the content and engagement they encounter.

Results & findings

1. The study found that 65.2% of respondents were aged 19-24, with high social media anxiety triggered by unrelatable content, lack of engagement (likes/comments), and appearance-related pressure. Self-esteem impacts were
2. mixed, with some users feeling more confident while others faced negative self-comparisons.
3. Before CBT, participants exhibited significant stress, anxiety, and emotional instability due to compulsive social media use, frequent mood swings, and difficulty handling online criticism. Many struggled with addiction, spending excessive time on platforms despite recognizing negative effects.
4. Fear of Missing Out (FOMO) was prevalent, with users feeling stressed when seeing others' activities online. However, some had started developing healthier mindsets about disconnecting.
5. Post-CBT intervention, participants showed marked improvement in emotional regulation, reporting better control over reactions to triggering content and fewer mood fluctuations linked to social media use.
6. Self-esteem improved significantly, with users engaging more mindfully on social media and experiencing reduced negative self-perception.
7. Healthier digital habits emerged, including setting screen-time limits, taking regular breaks, and practicing digital detoxes, which reduced compulsive checking behaviors.
8. Resilience to online criticism increased, with participants better able to process negative feedback without it affecting their mental well-being.
9. FOMO-related stress decreased as users felt less pressure to stay constantly connected and more comfortable missing out on online content.
10. Overall, CBT helped reduce social media-linked anxiety, depression, and emotional instability, promoting long-term mental well-being.
11. The findings confirm CBT as an effective therapeutic approach for addressing social media-related mental health issues, fostering balanced digital engagement and improved emotional resilience.

Suggestions and recommendations

1. Prioritize Cognitive Behavioral Therapy (CBT) Enhanced by Peer-Led Support Systems:

Advocate for the strategic implementation of CBT frameworks, coupled with structured peer support networks, as a more impactful intervention compared to the isolated restriction of social media access in addressing anxiety disorders, depressive conditions, and tendencies toward addiction. This integrated approach facilitates the development of resilient coping strategies and establishes a supportive community network. These peer support infrastructures can be effectively managed via secure online platforms, ensuring participant anonymity and convenient accessibility.

2. Strengthen Professional Expertise and Expand the Availability of Digital Resources:

Require targeted educational programs for mental health professionals focused on the intricate connections between social media use patterns and subsequent mental health conditions. Extend the accessibility of digital resources, such as carefully developed self-directed CBT programs, to improve ease of access and

provide ongoing assistance for individuals seeking to manage their engagement with social media platforms. It's essential that these resources be grounded in empirical evidence and continuously updated to reflect current advancements in the field.

3. Expand Public Awareness Campaigns and Educational Programs:

Initiate broad public awareness initiatives aimed at dismantling the stigma surrounding mental health issues and promoting responsible engagement with social media technologies. Integrate training in digital literacy and critical reasoning skills into educational programs at all levels to empower individuals, especially young people, to effectively navigate online environments while discerning the reliability of information.

4. Undertake Longitudinal Investigations into CBT Treatment Outcomes:

Invest in longitudinal research projects to comprehensively assess the enduring effects of CBT-based interventions across various demographic segments. Employ robust analytical techniques to compare the effectiveness of digitally delivered CBT methods with traditional face-to-face therapeutic approaches. The results of these studies will enable the optimization of intervention strategies to address the distinct requirements of diverse populations, improving overall mental health outcomes.

5. Address Ethical Risks and Promote Responsible Digital Citizenship:

Given the increasing utilization of machine learning (ML) tools to predict potential mental health problems based on social media data, it is vital to address critical ethical challenges related to data privacy and the potential for algorithmic bias. Promote responsible technology use by supporting strict enforcement of age verification measures on social media platforms and fostering the creation of safer online spaces through proactive content moderation.

6. Foster Authentic Social Connections and Challenge Unrealistic Standards of Comparison:

Promote genuine social interactions and encourage environments that value real interpersonal relationships over superficial online connections to mitigate the harmful consequences of social comparison and social isolation. Enact public health programs designed to deconstruct the often-unattainable ideals of beauty frequently promoted through social media channels, enabling individuals to recognize and reject negative influences to improve self-esteem and overall well-being.

Conclusion

This study underscores the critical role of CBT in addressing social media-related mental health challenges. The findings reveal that CBT interventions significantly improve emotional well-being, self-esteem, and resilience to online stressors. The integration of CBT into digital platforms offers a scalable solution to reach more individuals struggling with social media-induced anxiety and depression. Further research is required to explore long-term efficacy and cultural adaptability of CBT interventions in diverse populations. By implementing structured mental health strategies, society can effectively mitigate the negative consequences of social media while promoting healthier digital interactions.

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