

From Digital Presence To Emotional Absence: A Comparative Study Of Loneliness Among Hyperconnected Adults

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Abstract

Background: With the rapid growth of digital technology, excessive engagement with social media—often termed hyperconnectivity—has become increasingly common among adults. The present study aimed to examine the relationship between hyperconnectivity and loneliness and to explore the influence of gender and place of residence (metropolitan and non-metropolitan areas) on these variables.

Materials and Methods: A quantitative, correlational research design was utilized involving 110 participants (47 males and 63 females), with 62 individuals hailing from metropolitan cities and 48 from non-metropolitan areas in India. Data collection employed standardized instruments: the Social Media Use Scale for measuring hyperconnectivity and the UCLA Loneliness Scale for evaluating loneliness. The relationship between hyperconnectivity and loneliness was analysed using Pearson's correlation, while independent samples t-tests assessed differences related to gender and residential background.

Results: Findings revealed a positive correlation between hyperconnectivity and loneliness among participants. Gender differences did not significantly impact levels of hyperconnectivity ($t = -0.1, p > .05$) or loneliness ($t = -1.03, p > .05$). Additionally, no significant variation in hyperconnectivity was noted based on residential background ($t = 0.67, p > .05$). However, loneliness scores significantly differed according to place of residence, with metropolitan participants experiencing higher levels of loneliness compared to those from non-metropolitan areas ($t = 2.14, p < .05$). Furthermore, metropolitan participants reported greater social media usage than their non-metropolitan counterparts.

Conclusion: The study indicates a correlation between increased social media engagement and heightened feelings of loneliness. It reveals that gender does not notably affect hyperconnectivity or loneliness levels, while residential background influences emotional experiences relating to loneliness. These findings highlight the psychological effects of excessive digital engagement and stress the importance of encouraging a balanced approach to social media usage to improve emotional wellbeing.

Key Words: Hyperconnectivity, Loneliness, Social Media Use

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I. Introduction

In the current digital era, human connection has become paradoxical. Millions of people are only a message, tag, or post away, making the globe more linked than ever before, but loneliness has subtly increased. A state of hyper connectedness has been brought about by smartphones, social networking sites, and virtual communication, where regular online involvement frequently takes the place of in-person interactions. For many people, what was once a means of preserving ties has turned into a cause of emotional alienation and social exhaustion. Researchers studying mental health, sociology, and psychology have all become more interested in this conflict between emotional isolation and technology use.

People's perceptions of social belonging and emotional contentment are influenced by hyperconnectivity, which is defined by excessive and regular use of social media platforms. On the other hand, loneliness is a subjective feeling of emotional detachment and the absence of significant relationships rather than just a lack of companionship. A remarkable irony of contemporary culture is the confluence of these two phenomena: intense emotional absence and continual virtual presence.

However, not all populations feel loneliness and hyper connectedness in the same way. Digital activities and emotional results are significantly influenced by gender and residential background (metropolitan and non-

metropolitan). While rural or non-metro areas may still maintain traditional, in-person forms of social connection, urban living, with its fast-paced routines and more exposure to technology, may encourage higher levels of social media activity. Gender norms also affect how men and women utilize digital platforms for self-expression or social validation, as well as how they express their feelings and look for support. The current study is to investigate how loneliness and hyperconnectivity are related, as well as how gender and residential background affect these factors. The study examines the relationship between adult social isolation experiences and digital involvement habits using standardized instruments, the UCLA Loneliness Scale and the Social Media Use Scale.

II. Review Of Literature

Digital hyperconnectivity, as examined by Rogers Brubaker in 2020, significantly influences the construction of the self, shaping social interactions, culture, and governance. This phenomenon creates new self-concepts and redefines external self-perceptions, involving practices that extend beyond traditional theories. Brubaker reformulates early ideas about the internet as a medium for self-exploration, emphasizing how digital hyperconnectivity enables novel methods of objectifying, quantifying, and regulating the self through both active practices and systemic, data-driven processes. The work concludes by addressing the implications of these contemporary governance modes, highlighting how hyperconnectivity occupies and utilizes the self within techno-social frameworks.

A study by Laura Candiotta (2022) investigates the phenomenon of extended loneliness, which is characterized as a unique form of loneliness that emerges in the context of networked life due to an overwhelming surplus of online connections. The research delves into the specific characteristics of extended loneliness and examines its phenomenological aspects, particularly relating to the hyperconnectivity that defines contemporary daily experiences.

Asif, A., & Mahajan's (2024) study examined the concept of loneliness in contemporary hyperconnected society impacted by ongoing digital interactions. The study concentrated on how people today perceive and interact with loneliness. The findings showed that isolation is a conscious decision, often linked to a retreat from social, political, and technical pressures.

Loneliness in the Age of Hyper-Connectivity by Saanvi Shukla (2024) analysed how social media engagement paradoxically contributes to loneliness among teenagers. It examined themes such as social comparison and validation-seeking, which lead to emotional distress and isolation. Utilizing secondary research, the study synthesized current literature on social media's impact on psychological development. Results revealed the need for promoting healthy social media use and digital literacy to combat loneliness and enhance emotional resilience in adolescents.

In 2024 a psychological study conducted by Arshiya Shafi and Zubair Ahmed Ratan, involving 384 participants examined Digital Identity Congruence, revealing that a significant gap between one's "Real Self" and "Digital Self" correlates with increased anxiety, depression, and social avoidance. The study suggests that the constant validation through likes and comments on an idealized persona may lead to fragile self-esteem, as the feedback is directed at a constructed character rather than the true individual.

The study by Peng Su & Mu He (2024) explores the mediating role of loneliness in the connection between smartphone addiction and subjective well-being among 1527 Chinese university students. Conducted across 16 universities, the research found that demographic factors influenced subjective well-being. A notable negative correlation was identified between smartphone addiction and subjective well-being, alongside a positive correlation between smartphone addiction and loneliness. Furthermore, loneliness was found to partially mediate this relationship, indicating that smartphone addiction affects subjective well-being both directly and indirectly through loneliness.

A study examines, a large online community dedicated to digital disconnection, to explore how individuals negotiate digital well-being. Using computational and qualitative analyses of discussions from over 26,000 members, the research reveals ambivalent relationships with technology, viewed as both beneficial and distressing. Rather than simple avoidance, digital disconnection emerges as a dynamic, skill-based practice through which users intentionally manage technology use to enhance well-being and reduce distraction. (Parry, D. A., Kuit, C., etal.,2025)

Rationale For The Study

The research is typically grounded in the following theoretical and empirical justifications, they are, the study explores the "Alone Together" Paradox, highlighting how digital tools provide access to others but lack emotional cues necessary for deep connections, leading to feelings of isolation. It investigates the Illusion of Connection, arguing that surface-level interactions may create a false sense of fulfilment while leaving the need for belonging unaddressed.

The research emphasizes the intersectionality of loneliness, noting that it varies by gender and residential background, with females often experiencing higher levels of subjective loneliness. It examines the impact of

social comparison, discussing how curated highlight reels on social media can foster feelings of inadequacy and a sense of exclusion, despite perceived connection.

Objectives

In the setting of a technologically advanced society, the goal of the current study was to comprehend the connection between loneliness and hyperconnectivity. The study specifically sought to accomplish the following goals:

1. To investigate the relationship between adult loneliness and hyperconnectivity.
2. To study the differences in residential backgrounds of adults in loneliness and hyperconnectivity.
3. To study the gender differences of adults in loneliness and hyperconnectivity

III. Method

The present study adopted a quantitative, correlational research design to examine the relationship between hyperconnectivity and loneliness, and to assess the influence of gender and place of residency (metropolitan and non-metropolitan areas) on these variables.

Sample: A total of 110 adult participants were included for the study through a snowball sampling method. The sample consisted of 63 individuals from metropolitan areas including Delhi, Mumbai, Raipur, Kolkata, and Pune, and 48 from non-metropolitan areas such as Kanpur, Champa, Sagar, Gorakhpur, Balasore, Rewa, and Cuttack. The gender distribution among participants consisted of 47 males and 63 females. highlighting a diverse demographic representation across various regions of India.

Procedure: The study utilized an online Google Form to collect data through standardized questionnaires assessing hyperconnectivity and loneliness. Hyperconnectivity was evaluated using the Social Media Use Scale, which measures excessive usage and continual engagement with social media platforms. Loneliness was measured via the UCLA Loneliness Scale by Russell, Peplau, and Ferguson (1978). It focused on feelings of social isolation and the absence of meaningful social connections. Participants were informed about the study's purpose and provided consent prior to involvement, ensuring that all responses remained confidential and were used exclusively for academic purposes.

IV. Results:

Table-1 shows the Pearson correlation analysis conducted on a sample of 112 participants revealed a correlation coefficient of .276 between hyperconnectivity and loneliness. This positive correlation suggests that as hyperconnectivity scores increase, loneliness scores also tend to increase. The statistical significance of this relationship is indicated by a p-value of .003, confirming that the association is robust.

Table 1- The Pearson Correlation of Hyperconnectivity and Loneliness in Gender and Residential Backgrounds

	Hyperconnectivity	Loneliness
Hyperconnectivity	1	.276**
Loneliness	.276**	1

** . correlation is significant at the 0.01 level(2-tailed)

Table 2 shows the findings regarding gender and residence-based differences in relation to social media use(hyperconnectivity) and loneliness scores. The mean values indicate slight variations in hyperconnectivity, with males averaging 49.43 and females 49.82. Loneliness scores also show variation, as males report an average of 44.9 and females 46.9. When comparing residency, individuals in metro areas score a loneliness mean of 46.4, while those in non-metro areas average 44.9. Conversely, social media usage mean scores are higher in metro areas (52.8) compared to non-metro areas (44.79).

Table 2- Gender and Residential Background Differences on Loneliness and Hyperconnectivity.

	Variables	Mean	t-Value	Remarks
Gender	Hyperconnectivity	Male- 49.4	-0.1	Not significant
		Female- 49.8		
	Loneliness	Male- 44.9	-1.03	Not significant
		Female- 46.9		
	Hyperconnectivity	Metro- 52.8	0.67	Significant

Places of residency		Non metro- 44.7		
	Loneliness	Metro- 46.4	2.14	Not significant
		Non metro-44.9		

Figure 1: Mean Differences among adults residing in metros and non-metros in hyperconnectivity and loneliness

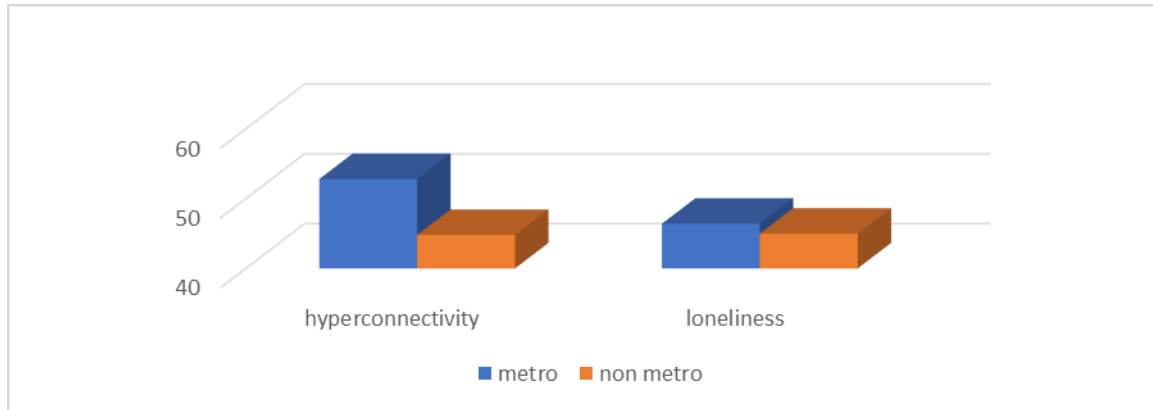
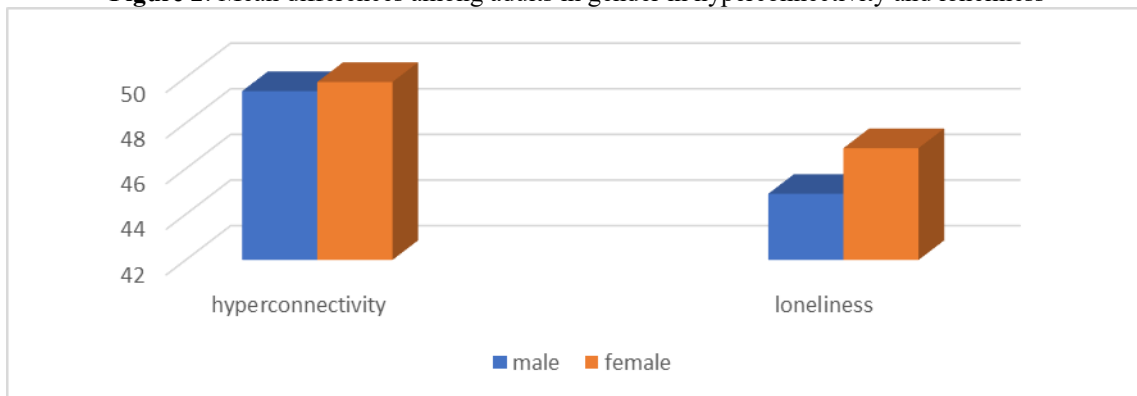


Figure 2: Mean differences among adults in gender in hyperconnectivity and loneliness



V. Discussion

The research findings indicate a significant correlation between hyperconnectivity and loneliness among students, where those reporting higher levels of hyperconnectivity also report increased feelings of loneliness. It also suggests that as hyperconnectivity scores increase, loneliness scores also tend to increase. The statistical significance of this relationship is indicated by a p-value of .003, confirming that the association is robust.

Crucially, while hyperconnectivity levels are uniform across different residential contexts, the nuances of loneliness vary significantly, underscoring the importance of residential background as a moderating factor in the relationship between hyperconnectivity and loneliness. This highlights the complexity of social interactions in varying environments and calls for further examination of the impact of residential context on mental health outcomes among hyperconnected populations. The statistical analysis reveals no significant gender differences in hyperconnectivity (t value -0.1) or loneliness (t value -1.03). However, when examining residential backgrounds, a t value of 0.67, indicates a significant difference in hyperconnectivity, while the loneliness t value of 2.14 indicates no significant difference between individuals from metro and non-metro areas. Hyperconnectivity differed significantly by residential background, with metro and non-metro students showing distinct levels of social media use across groups. while gender does not appear to significantly affect either social media use or loneliness scores.

Notably, t-test results showed a significant difference in hyperconnectivity scores between students residing in metro versus non-metro areas, suggesting that urban living conditions may exacerbate social media engagement across different residential backgrounds. Analysis revealed no significant differences in self-reported hyperconnectivity levels based on residential backgrounds, implying that the frequency of social media use remains consistent regardless of demographics. Furthermore, gender was not found to play a significant role in the levels of hyperconnectivity or loneliness experienced by the adults.

This study explores the prevalence of loneliness among adults in a hyperconnected society, comparing experiences across different genders and residential backgrounds. It highlights how increased connectivity through technology does not necessarily equate to reduced feelings of loneliness, revealing significant variations in loneliness levels based on demographic factors. The findings suggest that social networks, societal expectations, and individual circumstances play crucial roles in shaping loneliness experiences. Overall, the research emphasizes the need for targeted interventions that consider these differences to address loneliness effectively.

VI. Implications

- Interventions for "Identity Congruence" in mental health should aim to close the "digital gap," allowing clinicians to assist adults in aligning their "Virtual Self" with their "True Self" to mitigate social anxiety and avoidance.
- Digital hyperconnectivity may numb emotional responses, indicating a need for empathy training and digital mindfulness to foster active emotional engagement among users.
- The Urban-Rural Digital Divide highlights two contrasting experiences: urban hyperconnectivity can result in "Extended Loneliness," where individuals feel emotionally isolated despite physical proximity, while rural adults may encounter "Objective Isolation" due to inadequate digital tools that do not overcome physical distances.
- Digital hyperconnectivity leads to "extended loneliness," where significant online presence often conceals emotional absence, supporting the social displacement theory. This situation is notably affected by demographic factors, and involves digital identity management and algorithmic dependency, which create a fragile sense of self.
- Redefining "Connection," the study challenges the assumption that increased internet access leads to greater social capital, advocating for a focus on "Digital Literacy for Well-being" instead of merely enhancing "Digital Access."

VII. Future Directions

- Future research should utilize a longitudinal design with diverse populations and consider additional psychosocial factors to better understand the relationships, as hyperconnectivity and loneliness exhibited no significant gender differences.
- Larger samples and qualitative studies could further explain why environmental background affects loneliness more than gender.

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