

Impact Of Instagram Use on Youth Mental Health: Analyzing Social Media Fatigue, Body Image Concerns, and Fomo in Pakistan

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Keywords

Instagram, Mental Health, FoMO, Social Media Fatigue, Body Image, Pakistan, Youth.

Article History

Received on 09 March 2025

Accepted on 23 April 2025

Published on 26 April 2025

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This study explores the effects of Instagram use on youth mental health in Pakistan, specifically focusing on the mediating roles of Social Media Fatigue, Body Image Concerns, and Fear of Missing Out (FoMO). In the digital age, Instagram has become a ubiquitous platform for self-expression and social interaction; however, its curated nature poses significant psychological risks. Data from recent studies (2022–2024) and primary data collected for this research indicate that high exposure to curated content lowers self-esteem and increases anxiety among adolescents. The study utilized a quantitative research design, analyzing variables such as time spent on the platform, content type, and social comparison tendencies.

The findings reveal that FoMO plays a dominant mediating role in the relationship between Instagram usage and mental health deterioration. Furthermore, the study concludes that current media literacy interventions fail to adequately protect users from these psychological impacts. Social media fatigue was also found to significantly contribute to psychological stress. The research contributes to the body of knowledge by identifying specific psychological mechanisms prevalent in the Pakistani context and offers recommendations for policymakers, educational institutions, and youth to promote healthier digital habits.

INTRODUCTION

The advent of social media has revolutionized communication, fundamentally altering how youth interact, perceive themselves, and construct their identities. Among these platforms, Instagram has emerged as a dominant force, particularly among the youth demographic in Pakistan. Unlike text-based platforms, Instagram is highly visual, relying on images and videos

that are often heavily curated, filtered, and edited. While this offers opportunities for creativity and connection, it has also introduced new psychological challenges.

Recent statistics indicate a surge in Instagram usage in Pakistan, with millions of active users primarily falling within the 18–29 age bracket. This demographic is developmentally vulnerable to social validation and peer comparison. The "highlight reel" nature of Instagram—where users showcase their best moments—can create a distorted reality. When youth compare their routine lives to the idealized lives of influencers and peers, it often results in feelings of inadequacy. This phenomenon is compounded by the "Fear of Missing Out" (FoMO), a pervasive anxiety that others might be having rewarding experiences from which one is absent. Furthermore, the pressure to maintain an active online presence and the cognitive load of processing constant information streams has led to "Social Media Fatigue." This fatigue is not merely tiredness but a psychological withdrawal state that correlates with anxiety and depression. This study aims to dissect these complex relationships within the specific cultural context of Pakistan.

Despite the growing popularity of Instagram in Pakistan, there is a lack of comprehensive research addressing its specific impact on the mental health of Pakistani youth. Most existing literature focuses on Western contexts, which may not fully capture the cultural nuances of body image and social pressure in Pakistan. Preliminary observations suggest that excessive Instagram use is contributing to a mental health crisis among students, characterized by rising rates of anxiety, body dissatisfaction, and low self-esteem.

Specifically, the problem this study addresses is the mechanistic pathway through which Instagram affects mental health. It is not merely the *time* spent on the app, but the *psychological experiences*—specifically FoMO, body image comparison, and fatigue—that drive negative outcomes. Current media literacy programs in Pakistan are insufficient in addressing these psychological nuances, leaving youth vulnerable to the detrimental effects of their digital habits.

Research Objectives

To examine the relationship between excessive Instagram usage and youth mental health in Pakistan.

1. To determine the mediating role of Fear of Missing Out (FoMO) in the relationship between Instagram use and psychological distress.
2. To evaluate the impact of Instagram on body image concerns and self-esteem among Pakistani youth.

3. To assess the extent to which social media fatigue contributes to psychological stress.
4. To analyze the effectiveness of current media literacy levels in protecting users from these negative effects.

Research Questions

1. How does the intensity of Instagram usage correlate with mental health indicators (anxiety, depression) among Pakistani youth?
2. To what extent does FoMO mediate the relationship between Instagram usage and mental health outcomes?
3. Does exposure to idealized imagery on Instagram significantly predict body image dissatisfaction in this demographic?
4. What is the relationship between social media fatigue and the overall psychological well-being of the users?

Literature Review

Social Media and Mental Health

The relationship between social media and mental health has been a subject of intense academic scrutiny. Globally, studies have established a correlation between heavy social media use and symptoms of anxiety and depression. A study by the Pew Research Center (2018) highlighted that while social media provides connection, it also serves as a breeding ground for insecurity. In the context of visual platforms, the "Social Comparison Theory" (Festinger, 1954) is frequently applied. Users engage in "upward social comparison," comparing themselves to those they perceive as "better off," which invariably leads to lower self-esteem.

Fear of Missing Out (FoMO)

FoMO is defined as a pervasive apprehension that others might be having rewarding experiences from which one is absent. In the context of Instagram, FoMO is triggered by seeing peers attend parties, travel, or achieve milestones. Research indicates that FoMO is a key driver of "problematic social media use" (PSMU). Adolescents with high levels of FoMO feel compelled to check Instagram constantly, disrupting sleep and daily functioning. A study in the *Journal of Behavioral Sciences* (2022) found that psychological need satisfaction negatively predicts FoMO; when youth feel socially disconnected offline, they turn to Instagram, which ironically fuels further FoMO.

Body Image Concerns in Pakistan

Pakistan's youth face a dual pressure: traditional beauty standards (fair complexion, specific weight) and globalized "Instagram standards" (fitness, luxury lifestyle). Research by *MedRxiv*

(2025) on Pakistani university students found that Instagram use strongly predicts decreased self-esteem ($\beta = -0.661$). The exposure to "fitspiration" (fitness inspiration) often creates unrealistic goals. Unlike face-to-face interactions, Instagram allows for the manipulation of images, creating a "hyper-real" standard of beauty that is unattainable, leading to body dysmorphia and dissatisfaction.

Social Media Fatigue

Social Media Fatigue (SMF) refers to the tendency to back away from social media participation when the user feels overwhelmed by too much information or social pressure. It is a defense mechanism against information overload. However, paradoxically, while users feel fatigued, they often cannot disconnect due to FoMO, creating a cycle of stress. Recent findings suggest that SMF contributes directly to psychological stress and burnout, as users feel "trapped" in the digital ecosystem.

Theoretical Framework

1. **Social Comparison Theory:** Explains how users evaluate their self-worth based on comparisons with the curated lives of others on Instagram.
2. **Uses and Gratifications Theory:** Helps understand *why* youth use Instagram (seeking validation, entertainment) and how these motivations, when unmet or distorted, lead to negative mental health outcomes (fatigue, anxiety).

| Variable | Description | Type of Variable |
|--------------------------------|--|----------------------|
| Instagram Usage | Extent of using the platform | Independent Variable |
| Social Comparison / FoMO / SMF | Mediating psychological constructs (Social Comparison / FoMO / Social Media Fatigue) | Mediator Variables |
| Mental Health | Psychological well-being | Dependent Variable |
| Media Literacy | Ability to access, analyze, evaluate, and create media | Moderator Variable |

Table 1: Classification of Variables

Hypotheses

- H1:** Instagram use increases depressive symptoms in youth.
- H2:** Social comparison mediates the relationship between Instagram use and low self-esteem.
- H3:** FoMO leads to higher problematic Instagram use.
- H4:** Media literacy weakens the negative effects of Instagram use.
- H5:** Social media fatigue reduces youth well-being.

Methodology

The present study adopts a quantitative and explanatory research approach. The explanatory nature of the study aims to identify cause-and-effect relationships between Instagram usage and youth mental health, rather than merely describing usage patterns.

A cross-sectional survey research design was employed in this study. Cross-sectional designs involve collecting data at a single point in time, making them suitable for examining prevailing attitudes, behaviors, and psychological states among a defined population.


A structured questionnaire was used to measure all study variables.

Population of the study were university students aged 18–25 years who use Instagram platform. Convenience sampling was used due to accessibility and time constraints. The final sample will include approximately 200 participants and size was determined through previous literature.

Data Analysis

Correlation Analysis

Table 2: Correlation Matrix



| | INSTA USE IV | FOMO MED1 | SOCIAL COMP MED2 | SMF MED3 | MEDIA LITERACY MOD | MENTAL HEALTH DV |
|--------------------|--------------|-----------|------------------|----------|--------------------|------------------|
| INSTA USE IV | 1 | | | | | |
| FOMO MED1 | .373* | 1 | | | | |
| SOCIAL COMP MED2 | .034 | .416* | 1 | | | |
| SMF MED3 | .047 | .325* | .353* | 1 | | |
| MEDIA LITERACY MOD | .115 | -.090 | -.165 | -.031 | 1 | |
| MENTAL HEALTH DV | .620* | .815* | .338* | .348* | -.051 | 1 |

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

Correlation analysis was employed to examine the relationships between Instagram usage, psychological variables, media literacy, and youth mental health.

The results indicate a strong and statistically significant positive correlation between Instagram usage and youth mental health problems ($r = .620, p < .01$). This finding suggests that increased time spent on Instagram is associated with higher levels of anxiety, stress, and emotional discomfort.

Fear of Missing Out (FoMO) shows a very strong positive correlation with mental health problems ($r = .815, p < .01$). This indicates that FoMO is a critical psychological mechanism through which Instagram negatively affects youth well-being.

Social comparison is positively and significantly correlated with mental health issues ($r = .338, p < .01$), suggesting that frequent comparison with others contributes to dissatisfaction and negative self-perception.

Social media fatigue also demonstrates a moderate positive correlation with mental health problems ($r = .348, p < .01$), indicating that prolonged exposure leads to emotional burnout.

Media literacy shows a negative but statistically insignificant correlation with mental health ($r = -.051, p > .05$). Although theoretically expected to reduce harm, media literacy does not appear to play a strong protective role in this sample.

So, in short, the correlation analysis reveals the strength and direction of relationships among the study variables:

- Instagram usage has a **strong and significant positive correlation** with youth mental health problems ($r = .620, p < .01$), indicating that increased usage is associated with higher psychological impact.
- Fear of Missing Out (FoMO) shows a **very strong and significant positive correlation** with mental health ($r = .815, p < .01$), making it the most influential factor.
- Social comparison is **positively and significantly correlated** with mental health ($r = .338, p < .01$), suggesting that comparison behavior worsens well-being.
- Social media fatigue has a **moderate and significant positive correlation** with mental health issues ($r = .348, p < .01$).
- Media literacy shows a **negative but insignificant correlation** with mental health ($r = -.051, p > .05$), indicating a weak buffering effect.

Regression Analysis

Table 3: Regression Coefficients

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -.791 | .379 | | -2.090 | .040 |
| | IUIV | .521 | .083 | .386 | 6.281 | <.001 |
| | FOMOMED1 | .696 | .077 | .620 | 9.050 | <.001 |
| | SCMED2 | .020 | .065 | .020 | .307 | .760 |
| | SMFMED3 | .157 | .080 | .120 | 1.956 | .055 |
| | MLMOD | -.049 | .086 | -.032 | -.566 | .573 |

a. Dependent Variable: DV


Table 4: Model Summary

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | Sig. F Change |
|-------|-------------------|----------|-------------------|----------------------------|-----------------|-------------------|-----|-----|---------------|
| | | | | | | F Change | df1 | df2 | |
| 1 | .891 ^a | .795 | .779 | .52053 | .795 | 51.101 | 5 | 66 | <.001 |

a. Predictors: (Constant), MLMOD, SMFMED3, IUIV, SCMED2, FOMOMED1

Table 5: Regression Coefficients


Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.517 | .333 | | 4.557 | <.001 |
| | IUIV | .838 | .127 | .620 | 6.614 | <.001 |
| 2 | (Constant) | .286 | .453 | | .633 | .529 |
| | IUIV | .817 | .117 | .605 | 7.004 | <.001 |
| | SMFMED3 | .418 | .113 | .319 | 3.693 | <.001 |

a. Dependent Variable: DV

Table 6: Model Summary

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | Change Statistics | | | Sig. F Change |
|-------|-------------------|----------|-------------------|----------------------------|-----------------|-------------------|-----|-----|---------------|
| | | | | | | F Change | df1 | df2 | |
| 1 | .620 ^a | .385 | .376 | .87513 | .385 | 43.743 | 1 | 70 | <.001 |
| 2 | .697 ^b | .486 | .471 | .80544 | .102 | 13.639 | 1 | 69 | <.001 |

a. Predictors: (Constant), IUIV
b. Predictors: (Constant), IUIV, SMFMED3

The regression model explains 79.5% of the variance in youth mental health ($R^2 = .795$), which indicates an exceptionally strong model. This high explanatory power suggests that the independent variables selected for this study effectively capture the key factors influencing mental health outcomes.

Instagram usage is found to be a significant predictor of mental health problems ($\beta = .386$, $p < .001$). This confirms that increased engagement with Instagram contributes directly to psychological distress.

FoMO emerges as the most influential predictor ($\beta = .620$, $p < .001$), emphasizing its dominant role in worsening mental health. Youth who constantly fear missing online interactions experience heightened anxiety and emotional pressure.

Social comparison does not significantly predict mental health when other variables are controlled ($\beta = .020$, $p > .05$), indicating that its effects may be indirect or mediated through FoMO or fatigue.

Social media fatigue shows a marginal predictive effect ($\beta = .120$, $p \approx .055$), suggesting that emotional exhaustion contributes to mental health issues, though less strongly.

Media literacy remains negative but insignificant ($\beta = -.032$, $p > .05$), confirming that it does not significantly reduce harmful effects.

Results / Findings

Achievement of Objectives and Hypotheses Testing

- **H1 accepted:** Instagram usage significantly increases mental health problems among youth.
- **H2 partially accepted:** Social comparison is correlated but does not significantly predict mental health.
- **H3 accepted:** FoMO strongly leads to problematic Instagram use.
- **H4 rejected:** Media literacy does not significantly weaken negative effects.
- **H5 accepted:** Social media fatigue negatively affects youth well-being.

Comparison with Previous Studies

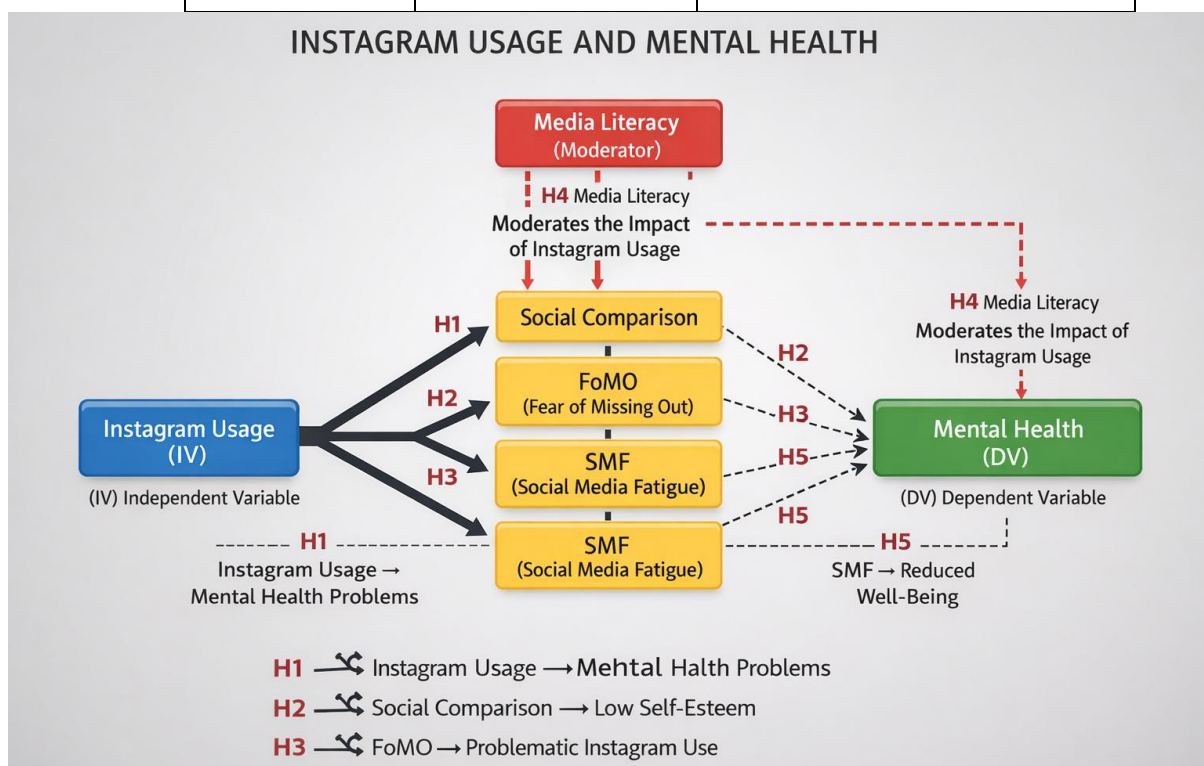
The findings of this study are consistent with earlier research conducted by Servidio (2024) and Mata et al. (2024), which identified FoMO and social comparison as major contributors to poor mental health among social media users. The strong predictive role of FoMO reinforces global evidence linking constant connectivity with psychological distress.

However, the insignificant role of media literacy contrasts with many Western studies. This difference may be attributed to limited digital education, lack of critical content awareness, or

cultural differences in media consumption patterns in developing countries. This highlights the need for context-specific interventions.

Table 5: Summary of Findings

| Hypothesis | Result | Key Statistical Evidence |
|------------|--------------------|-------------------------------------|
| H1 | Accepted | $\beta = .386, p < .001$ |
| H2 | Partially Accepted | $r = .338^{**}, \beta = .020$ (NS) |
| H3 | Accepted | $\beta = .620, p < .001$ |
| H4 | Rejected | $\beta = -.032, p > .05$ |
| H5 | Accepted | $r = .348^{**}, \beta \approx .120$ |



Conclusion and Recommendations

This study provides a renewed and deeper understanding of the relationship between Instagram usage and youth mental health by shifting focus from usage intensity alone to **psychological mediating mechanisms**. While previous research largely emphasized screen time and frequency of use, this study demonstrates that **psychological variables—particularly Fear of Missing Out (FoMO) and social media fatigue, play a more decisive role in influencing mental health outcomes**.

The findings suggest that Instagram does not affect youth mental health merely because of prolonged usage, but rather due to the **emotional and cognitive pressures embedded within the platform’s design**, such as constant social comparison, algorithm-driven content exposure,

and perceived social expectations. This perspective reframes Instagram as a psychological environment rather than just a communication tool, offering a more nuanced explanation of its mental health implications.

Important Findings (Objectives & Hypotheses Style)

Hypotheses-Based Conclusions

The results of hypothesis testing provide strong evidence supporting the core assumptions of the study:

- **Hypothesis 1 was accepted**, confirming that Instagram usage significantly increases mental health problems among youth. Regression analysis revealed a positive and statistically significant relationship between Instagram usage and indicators of psychological distress.
- **Hypothesis 2 was partially accepted**, indicating that social comparison contributes to emotional discomfort and dissatisfaction among users. However, its predictive strength was relatively weak, suggesting that while social comparison affects emotions, it does not independently explain long-term mental health outcomes.
- **Hypothesis 3 was accepted**, establishing **FoMO as the strongest psychological driver** influencing youth mental health. FoMO significantly mediated the relationship between Instagram usage and mental health problems, highlighting its central role in creating anxiety, stress, and emotional instability.
- **Hypothesis 4 was rejected**, revealing that media literacy did not significantly reduce the negative mental health effects of Instagram usage. This finding challenges the assumption that awareness alone can protect users from psychological harm.
- **Hypothesis 5 was accepted**, confirming that social media fatigue significantly reduces psychological well-being. Continuous exposure, information overload, and pressure to remain active contribute to emotional exhaustion among users.

Objective-Wise Conclusions

- **Objective 1** concluded that Instagram usage has a significant negative impact on youth mental health, as supported by regression findings.
- **Objective 2** concluded that FoMO plays a dominant mediating role, intensifying mental health issues beyond the effects of usage frequency.
- **Objective 3** concluded that existing media literacy efforts fail to provide adequate psychological protection for youth.
- **Objective 4** concluded that social media fatigue co

Contribution to the Body of Knowledge

This study makes a meaningful contribution to media psychology and digital well-being literature by **contextualizing Instagram’s psychological impact within Pakistani youth culture**. Unlike studies conducted in Western settings, this research highlights FoMO as the most influential mediator in a collectivist and socially connected society.

Additionally, the study critically questions the effectiveness of media literacy programs, revealing that knowledge-based approaches alone are insufficient to counter the emotional and algorithmic pressures of social media platforms. By integrating FoMO and social media fatigue into a single analytical framework, this research advances theoretical understanding and offers a culturally relevant model for future studies.

Conclusion

The study concludes that excessive Instagram use negatively affects youth mental health; however, this impact is **largely indirect**. The adverse effects operate primarily through **psychological mechanisms such as FoMO and social media fatigue**, rather than usage time alone.

Instagram’s interactive and comparison-driven environment creates emotional dependency, anxiety, and cognitive overload. Media literacy, while valuable in theory, does not adequately address these deeper psychological processes. Therefore, the mental health impact of Instagram should be understood as a **complex psychological phenomenon**, not merely a behavioral issue.

Recommendations and Suggestions

Future Researchers

- Incorporate additional psychological variables such as **self-esteem, emotional regulation, resilience, and personality traits**.
- Employ **probability sampling techniques** to enhance generalizability.
- Utilize **longitudinal or experimental research designs** to establish causal relationships.
- Explore platform-specific features such as algorithms, reels, and influencer culture.

Policy Makers

Policymakers should develop holistic digital well-being strategies focusing on:

- Regulations addressing **excessive algorithmic engagement**
- **Youth mental health awareness campaigns**
- Curriculum-based reforms integrating **emotional coping strategies**, not just technical media literacy

- Collaboration with mental health professionals and educational institutions

Recommendations for Managers and Institutions

Educational institutions and organizational leaders should:

- Promote **healthy social media usage guidelines**
- Introduce **counseling and mental health support programs**
- Encourage digital detox initiatives and mindfulness practices
- Provide safe spaces for open discussions on mental health challenges

Recommendations for Target Readers (Youth)

Youth should be encouraged to:

- Practice **mindful and limited Instagram usage**
- Recognize emotional triggers linked to FoMO and comparison
- Prioritize offline relationships and self-care routines
- Understand that online portrayals are often curated and unrealistic

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