

The Impact of Social Media Use on Anxiety Among University Students: An Empirical Study from the Perspectives of Media Dependency and Emotional Contagion

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Abstract: With the widespread adoption of social media, anxiety levels among university students have gradually increased in everyday life. Social media has become not only a major channel for information acquisition, but also a primary platform through which students interact, seek entertainment, and express emotions. However, platform characteristics such as the diffusion of negative emotions and information overload [4,5] may exert profound influences on students' mental health. Grounded in Media Dependency Theory and Emotional Contagion Theory, this study examines the relationship between social media use and anxiety among university students. The existing studies indicate that social media use—particularly passive browsing—shows a clear positive association with university students' anxiety levels, and the literature suggests that media dependency and emotional contagion function as important mediators in this relationship.

Keywords: Social Media; University Students; Anxiety; Media Dependency; Emotional Contagion; Empirical Research

1. Introduction

1.1 Research Background and Problem Statement

Against the backdrop of massification in higher education and intensifying social competition, anxiety among university students has become a frequently discussed topic in youth mental health research. As digital media becomes deeply embedded in daily life, students' attentional resources and emotion-regulation processes are increasingly susceptible to external information environments. Anxiety is therefore no longer triggered solely by isolated events, but may

manifest as persistent psychological tension and uncertainty. Anxiety can impair social confidence and the quality of interpersonal interaction, which may appear as hypersensitivity to others' evaluations, social avoidance or excessive appeasement, and emotional dysregulation and withdrawal in conflict situations. Such patterns may weaken peer support systems and reduce social adaptability and a sense of belonging, thereby amplifying anxiety along a cycle of "social withdrawal → reduced support → intensified anxiety." University years also constitute a critical window for career exploration and life planning. Individuals with higher anxiety may display greater uncertainty in career choice, heightened risk aversion, and decision procrastination, and may even experience "choice paralysis." Meanwhile, anxiety may encourage short-term and avoidant coping strategies aimed at reducing immediate stress, potentially undermining long-term planning and the ability to seize opportunities.

As an important tool for communication and social connection, social media is widely used for information seeking, interpersonal communication, and emotional expression. Prior research suggests that social media use may accumulate negative emotions and elevate anxiety. For example, found that frequent Facebook use is positively associated with negative affect. [1] Social media may facilitate the spread of negative emotions and provide an uninterrupted stream of information. Under high-frequency refreshing and fragmented content consumption, users may experience sustained attentional disruption and difficulty processing information deeply; an intensified fear of missing out (FOMO)[6]; and repeated exposure to risks, trending topics, and negative news. The reason social media may induce anxiety among university students lies in its

simultaneous reshaping of the information environment and individuals' emotion-regulation strategies. On the one hand, rapid updates and fragmented diffusion can cause information overload and FOMO, keeping individuals in a prolonged state of vigilance and uncertainty. On the other hand, platforms often present others' "highlight moments," and passive browsing is more likely to trigger upward social comparison and self-evaluation pressure, leading to concerns such as "I am not good enough" or "I am falling behind." In addition, negative emotional content on social networks is highly visible and readily diffuses. Repeated exposure to others' anxiety, complaints, or panic expressions may generate emotional contagion, amplifying negative expectations. When individuals develop stronger dependency on the platform-binding needs for information, recognition, and emotion relief to being continuously online and receiving instant feedback—they may become trapped in a reinforcing loop of "the more anxious one feels, the more one scrolls; the more one scrolls, the more anxious one becomes," thereby promoting the onset and maintenance of anxiety. This state increases cognitive load, makes individuals more likely to perceive tension and a lack of control, and thus may trigger or aggravate anxiety.

1.2 Research Objectives and Significance

In the domestic literature, integrated studies from dual theoretical perspectives remain limited, and empirical tests of mediating mechanisms are insufficient. This study therefore aims to examine in depth the impact of social media use on anxiety among university students. In particular, drawing on media dependency and emotional contagion, it explores how different use patterns (passive browsing and active interaction) affect students' anxiety through these mechanisms, and clarifies the roles played by media dependency and emotional contagion. The contributions are as follows:

- (1) Theoretical significance: The study extends the applicability of Media Dependency Theory and Emotional Contagion Theory in digital contexts and reveals their synergistic roles in the relationship between social media and mental health.
- (2) Practical significance: The findings provide evidence for designing university mental health curricula and offer suggestions for optimizing platform recommendation and content governance; they may also help students adopt

healthier social media habits and reduce anxiety.

2. Literature Review

2.1 Distinct Patterns of Social Media Use

Social media use is not a unitary behavior. Prior studies commonly distinguish between passive browsing and active interaction. Passive browsing refers to information reception behaviors such as scrolling through Moments/feeds, watching short videos, browsing others' updates, or consuming trending content with limited engagement (e.g., few comments, likes, or private messages). Active interaction emphasizes participation and expression, including posting content, commenting and replying, private messaging, sharing/forwarding, and organizing online social activities. Among university students, both patterns are prevalent; however, they differ in underlying psychological processes. Passive browsing tends to generate continuous informational stimulation, social comparison, and a tense ambience, whereas active interaction may be accompanied by social support, affective connection, and expressive satisfaction. Consequently, the impacts of these patterns on mental health may differ.

2.2 Research on Anxiety

Anxiety is typically conceptualized as an emotional state characterized by tension, worry, and unease. Sources of anxiety among university students are multidimensional, including academic stress (course load, examinations, performance evaluation, GPA competition), uncertainty related to employment and further education, and pressures arising from interpersonal relationships and social adjustment (peer evaluation, intimate relationships, group belonging). With the diffusion of online culture and appearance standards, anxiety related to appearance and body image has also become more salient. The harms of anxiety extend beyond emotion itself: it may reduce learning efficiency, impair sleep quality, and increase fatigue. At the interpersonal level, anxiety may lower willingness to interact, induce avoidance or over-sensitivity, and thereby weaken social support networks.

2.3 Overview of Media Dependency Theory

Media Dependency Theory emphasizes that when individuals increasingly rely on a medium (e.g., smartphones or social platforms) to satisfy

informational, social, or emotion-regulation needs, the medium's influence on their cognition and emotions also increases. Put simply, stronger dependency makes individuals more likely to be "moved" by media content. For university students, media dependency may manifest as frequent checking of messages, discomfort when offline, and using scrolling to relieve stress or confirm social relationships. When media dependency co-occurs with exposure to negative content, individuals may be more likely to fall into sustained tension and a sense of losing control through continuous connectivity and repeated refreshing, thereby increasing the risk of anxiety.

2.4 Overview of Emotional Contagion Theory

Emotional Contagion Theory posits that emotions are "contagious." Through interaction and observation, people may unconsciously be influenced by others' emotional expressions—much like catching a cold: seeing others happy may make one happier, whereas seeing others anxious may make one more nervous. For example, during finals week, repeatedly encountering peers' complaints, panic, or anxiety expressions on social media may create urgency and pressure even for individuals who were initially calm, thus intensifying worry and unease. Particularly in highly interactive networks with strong peer comparison, the diffusion of negative emotions may form a collective atmosphere, transforming anxiety from an individual experience into a more widespread group emotion.

2.5 Limitations of Existing Studies

Overall, existing research has discussed the association between social media use and psychological distress among university students and has proposed explanations such as social comparison, information overload, and sleep disruption. However, limitations remain in the integration of mechanisms. Some studies focus on media dependency and emphasize how use intensity and dependency heighten emotional vulnerability; others examine emotional contagion and analyze how exposure to negative emotional content affects mental health. Yet these two pathways are often treated separately, and relatively few studies incorporate both into a single model to examine their relative effects and potential linkage. In other words, to answer the question of "why social media use leads to

anxiety," it is necessary to more systematically test within one framework: whether media dependency strengthens the effects of emotional exposure, and whether emotional contagion constitutes a key mediating pathway from use to anxiety. These gaps provide both space and necessity for this study to construct and empirically test a mechanism model from the dual perspectives of "media dependency-emotional contagion."

3. Theoretical Framework and Research Hypotheses

3.1 Theoretical Framework

Based on Media Dependency Theory and Emotional Contagion Theory, this study builds an analytical framework to explain how social media use affects anxiety among university students through media dependency and emotional contagion. Specifically, social media use may influence anxiety through the following pathway:

University students' social media use—especially passive browsing (e.g., scrolling short videos and repeatedly checking others' updates with limited interaction)—may foster stronger reliance on platforms for information acquisition, emotion regulation, and daily socializing, thereby increasing media dependency. With higher dependency, individuals become more sensitive to platform content and more susceptible to its influence. In particular, when frequently encountering negative information and negative emotional expressions, they may experience stronger emotional involvement and accumulated stress, which ultimately manifests as elevated anxiety. Overall, the pathway can be described as: "passive social media use → increased media dependency → amplified impact of negative content → aggravated anxiety."

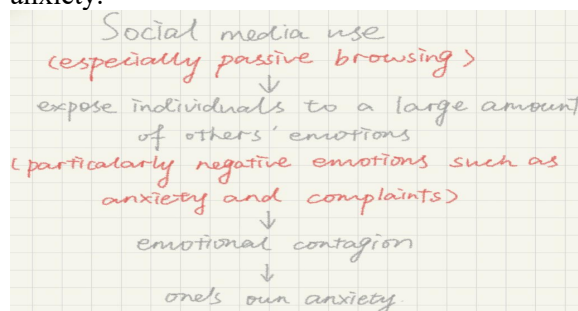


Figure 1. The Emotional Contagion Pathway: From Social Media Exposure to Personal Anxiety

3.2 Research Hypotheses

H1: The longer the time spent on social media, the higher the level of anxiety among university students.

H2: Passive browsing is more likely to induce anxiety than active interaction.

H3: Media dependency mediates the relationship between social media use and anxiety.

H4: Emotional contagion mediates the relationship between social media use and anxiety.

4. Research Methods and Data Analysis

4.1 Methodological Description

This study primarily adopts a literature analysis approach, aiming to systematically review existing findings, summarize the relationship between social media use and anxiety among university students, and further identify potential mechanisms through media dependency and emotional contagion. Specifically, relevant literature was retrieved from CNKI and Baidu Scholar, using keyword combinations aligned with the research topic to ensure comprehensive and relevant coverage. Key terms included “social media,” “university students,” “anxiety,” “media dependency,” and “emotional contagion,” supplemented by synonyms (e.g., “short video,” “social networking,” “mental health,” “emotional diffusion”) and Boolean logic to improve retrieval precision. The retrieved literature provided the foundation for subsequent screening and analysis.

4.2 Literature Screening Criteria

To ensure timeliness and academic reliability, explicit inclusion and exclusion criteria were applied. First, regarding publication time, priority was given to journal articles and theses published within the past 10 years to capture recent developments in rapidly evolving social media contexts. Second, regarding quality, preference was given to core-journal papers, research outputs released by authoritative institutions, and highly cited or influential studies to enhance credibility and representativeness. Third, regarding topical relevance, included studies needed to explicitly address the relationship between social media use and anxiety/mental health, or focus on mechanism-related variables such as media dependency, emotional contagion, social

comparison, and information overload. Studies with weak relevance, unclear research targets, or insufficient evidence were excluded.

4.3 Analytical Procedure

During analysis, included studies were synthesized through systematic coding, categorization, and comparative review. Specifically: (1) basic information was recorded and coded (e.g., author, year, population, methods, key variables, and main findings) to facilitate comparison and aggregation; (2) studies were categorized by topic and theoretical perspective, such as “use intensity/duration and anxiety,” “passive browsing and mental health,” “mediating/moderating roles of media dependency,” and “emotional contagion and diffusion of negative affect,” to map the research landscape; (3) on this basis, core conclusions were extracted, similarities and differences were compared, and potential reasons for discrepancies were examined, including sample differences, measurement instruments, platform types (e.g., Moments vs. short-video platforms), and model specifications (e.g., controls). Through these steps, this study synthesizes convergent evidence while clarifying remaining gaps and controversies to inform subsequent discussion.

5. Results and Discussion

5.1 Convergent Findings in the Literature

5.1.1 Multiple studies report a positive relationship between social media use duration/frequency and anxiety [3,5]: the longer and more frequent the use, the stronger the experience of anxiety (tension, worry, unease).

5.1.2 The literature widely suggests that “use pattern” is more critical than “total volume.” Passive browsing (scrolling feeds, watching short videos, viewing without interaction) is more likely to increase negative emotions and anxiety [2].

5.1.3 Verduyn et al. (2015) is widely cited. Their experimental and longitudinal evidence indicates that passive use is more likely to undermine affective well-being and increase negative affect, whereas the effects of active interaction are more complex and may be positive in some contexts.

5.1.4 A common conclusion is that social media affects anxiety primarily through mechanisms. Typical mediating/explanatory pathways include social comparison, information overload [4], fear

of missing out (FOMO), and impaired sleep.

5.1.5 Many studies also highlight individual differences: users with stronger platform dependency, higher self-evaluative sensitivity, and weaker social support are more likely to accumulate anxiety in social media environments[7].

5.2 Case Analysis

5.2.1 A university student became addicted to a short-video platform (e.g., Douyin/TikTok) and used scrolling to relieve stress, but entered a cycle of “cannot stop → staying up late → reduced learning efficiency → guilt and intensified anxiety,” eventually showing persistent tension, reduced attention, and poorer sleep quality.

5.2.2 On platforms such as Zhihu and Douban, questions like “Why do I feel anxious after browsing Moments?” frequently appear. Users commonly report that after seeing peers’ “highlight displays” (internships, offers, relationships, travel), they experience strong comparison and a sense of gap, leading to self-doubt and anxiety about an uncertain future.

5.3 Why Social Media Easily Triggers Anxiety: At Least Three Explanations

5.3.1 Rapidly updating feeds and fragmented content increase cognitive load and interrupt attention, producing a sense of tension such as “I cannot process everything” or “I might miss something important.”

5.3.2 Platforms often display others’ “highlight moments,” which can trigger upward comparison [5,8] and create self-evaluation pressure (e.g., “I am not as good” or “I am behind”), which may translate into anxiety.

5.3.3 Content expressing complaints, anxiety, and panic is more likely to be amplified and circulated. Repeated exposure may lead to emotional contagion, intensifying and prolonging individuals’ anxiety.

6. Conclusions and Recommendations

6.1 Conclusions

6.1.1 Social media use among university students is highly prevalent, and average daily use time is generally long; platforms have become deeply embedded in daily routines including learning, socializing, and entertainment.

6.1.2 Among different use patterns, passive

browsing (e.g., scrolling short videos and repeatedly checking others’ updates without interaction) is more likely to induce anxiety [2,5], because it more readily triggers social comparison, information overload, and emotional involvement. Moreover, the stronger students’ dependency on social media, the higher their anxiety tends to be-manifested as difficulty stopping use, higher sensitivity to “missing information,” and greater susceptibility of emotions to platform content.

6.1.3 The diffusion of negative emotions on platforms can further amplify anxiety. When negative content is continuously pushed, forwarded, and discussed, individuals are more likely to be drawn into an atmosphere of tension, worry, or helplessness, resulting in cumulative anxiety effects.

6.2 Policy and Practical Recommendations

6.2.1 Limit usage time by setting a clear daily cap, for example no more than 2 hours per day [3]. It is also advisable to concentrate social media use into fixed periods (e.g., during lunch breaks or after dinner) and avoid frequent checking during study intervals to prevent attention fragmentation. Smartphone “screen time” controls or Pomodoro timers can help transform “just a quick scroll” into a controllable and stoppable behavior.

6.2.2 Reduce mindless passive browsing and shift toward more active, goal-oriented use-for example, opening platforms mainly when contacting classmates, obtaining necessary information, or recording life moments. Meanwhile, consider cleaning up content sources that easily trigger anxiety (e.g., excessive showcasing, emotionally charged disputes, or fear-inducing accounts) to make one’s feed “cleaner.” In addition, when one notices that emotions are being strongly driven by online content, it is recommended to perform a brief “pause action” (e.g., stepping away from the screen, taking a walk, exercising, or meeting friends offline) to bring attention and emotion back to real-life contexts and reduce the accumulation of anxiety.

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