

Social Media Use and Mental Health Risk among Chinese Adolescents: Based on Qualitative Research on Second-Year Undergraduate in One University

Yuanxi Zhou

University of Shanghai for Science and Technology, Shanghai, China

Email: yuanxi.2004@outlook.com

How to cite this paper: Zhou, Y. X. (2024). Social Media Use and Mental Health Risk among Chinese Adolescents: Based on Qualitative Research on Second-Year Undergraduate in One University. *Advances in Applied Sociology*, 14, 845-864.
<https://doi.org/10.4236/aasoci.2024.1412054>

Received: November 27, 2024

Accepted: December 28, 2024

Published: December 31, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This study aims to explore the impact of social media use on mental health risk among Chinese adolescents. Through a qualitative study of second-year undergraduates at a university, this paper analyzed their reflections on high school and freshman life during adolescence, focusing on the relationship between the frequency and quality of social media use, content type, degree of addiction, and mental health risk. The study found that social media use was positively associated with the risk of depression, anxiety and psychological distress, especially in the behavioral patterns of social comparison and approval seeking. In addition, this study explored the possibility of mitigating the negative effects of social media by enhancing digital literacy and mental health awareness. The findings of this study provide a scientific basis for the development of targeted interventions aimed at promoting the mental health of adolescents in China. This study sheds light on the complex role of social media in adolescent mental health problems, accentuating the importance of families and schools in guiding adolescents to healthy use of social media.

Keywords

Social Media, Mental Health Risks, Chinese Adolescents, Depression, Anxiety, Qualitative Research

1. Introduction

In today's digital era, social media has become an indispensable part of the daily lives of teenagers—especially in China—where the ubiquitous use of smartphones and the rapid development of the internet have made it increasingly common for

young people to communicate, gather information, and cultivate social connections through social media platforms. The term “social media” describes the networks of online platforms that allow individuals to communicate and engage with others through text and images (Aichner et al., 2021; Carr & Hayes, 2015). However, every coin has two sides, and inevitably, social media brings negative effects as well. There are many issues related to social media—including, but not limited to: sexual messaging, privacy, safety, cyberbullying, educational disruptions, and mental health challenges (Kaur et al., 2022), which affect most.

As the ubiquity of digital media has increased, so has screen time among teenagers (Zhang et al., 2019). Social media use can lead to depression in adolescents (Hussain et al., 2020) or other problems, and in severe cases, suicide. Depression and suicidal behaviors among adolescents have increased significantly in recent years (Vidal et al., 2020). Depression is a common mental disorder among adolescents, with about 9% of adolescents experiencing moderate to severe depressive symptoms. Previous studies have shown that the incidence of depression is higher in southern China, with 23.5% of middle school students reporting depressive symptoms (Li et al., 2018). In addition to depression, it can also cause sleep problems. The incidence of sleep problems in college students is significantly higher than in the general population. The results of Huang et al. (2020) have shown that the incidence of poor sleep quality among Chinese college students was 9.8%, and the multi-factor logistic regression analysis has shown that poor sleep quality was significantly correlated with the use of smartphones for more than four years and more than five hours per day. The prevalence of suicidal ideation among Chinese college students is also not low and is closely related to the characteristics of social media use (Huang et al., 2022).

Studies have shown that the effects of social media use on the incidence of depression, anxiety, and psychological distress in adolescents may be multifactorial, and they are directly correlated, but may not be conclusively causal (Keles et al., 2020). Social media fosters appearance-based comparisons, which can lead to body dissatisfaction and self-esteem issues, especially among teenagers who already feel insecure. And the constant need to be online can lead to anxiety and interfere with offline social interactions. Also, cyberbullying and exposure to harmful content, such as images of self-harm, are significant risks, affecting mental health and exacerbating loneliness (Popat & Tarrant, 2023). Of course, more literature shows that problematic or addictive social media use can have adverse effects on adolescents' mental health (Boer et al., 2021; Karim et al., 2020; Li et al., 2018; Santos et al., 2023). Some are not only associated with depression, but also have a higher effect size with anxiety disorders (Hussain et al., 2020; Shannon et al., 2022). Most of the literature highlights the influence of quantitative and qualitative factors in the use of social media (Vidal et al., 2020). In problematic or addictive use of social media, the effects of likes, comments and followers on the mental health of adolescents are particularly obvious, as they lead users to seek social approval and self-esteem satisfaction, which is prone to stress, depression

and anxiety. At the same time, browsing posts and media sharing can also exacerbate users' psychological problems caused by comparing themselves to others. In contrast, social media gaming has less impact on mental health (Beyari, 2023).

Therefore, increasing digital literacy and mental health awareness are important tools to protect ourselves and take full advantage of the positive effects of social media. In the face of the increasing prevalence of psychological disorders among Gen Z, government cooperation with social media platforms is crucial. Governments should develop regulations to protect citizens, and social media platforms can provide mental health resources and information to jointly promote public mental health in the digital age (Yakobus et al., 2023).

However, most existing research has employed cross-sectional or longitudinal designs that assess social media use and mental health variables (Boer et al., 2021; Hussain et al., 2020), less focusing on the mechanism of how and why social media use affects adolescent mental health. If we do not appreciate this mechanism deeply, prevention and intervention will never be properly proposed. Therefore, this study aims to explore the impact of social media use on mental health risk in a qualitative study of second-year undergraduates at a university. It will provide a scientific basis for developing targeted interventions and promoting adolescent mental health among Chinese Adolescents.

2. Literature Review

2.1. Adolescents' Mental Health Risk

The rise in adolescent mental health challenges has paralleled the rapid growth of social media use over the past decade. While social media offers significant possibilities to expand and enhance mental health services for young people, it also introduces potential risks to their mental health and overall well-being (Hollis, 2022; Schønning et al., 2020). Mental health risks encompass depression, anxiety, stress, and loneliness (Ghanayem et al., 2024; Sharma & Tyszka, 2023; Zhou et al., 2023). The preponderance of scholarly research examines the relationship between social media use and mental health risk, and the research methods include systematic analysis, thematic analysis (Vidal et al., 2020), and qualitative literature review (Popat & Tarrant, 2023). For instance, Liu et al. (2022) established a dose-response model of the relationship between time spent on social media and the risk of depression in adolescents through a systematic review and analysis of relevant studies. This model provides a quantitative method for assessing the impact of social media use on adolescent mental health. In addition, two other papers used a three-wave longitudinal design to scrutinize thoroughly the association between problematic social media use and mental health risks such as depression, anxiety, stress, and loneliness (Wang et al., 2022; Zhou et al., 2023). These studies provide a crucial empirical foundation for understanding the complex effects of social media on mental health.

In terms of the relationship between mental health risks and social media use, the most frequently studied variables include frequency of social media use, quality of

use, type of content, degree of addiction to social networks, and individual mental health indicators such as measures of depression or anxiety symptoms. Furthermore, a small number of studies focused on other relevant variables, such as sleep quality (Huang et al., 2020), experience of stressful life events (Zhao et al., 2021), family conflict, and academic pressure (Wang et al., 2022), and usage habits (Santos et al., 2023).

Elaborating on these variables, various studies have examined how specific features and emotional experiences associated with social media use impact mental health. Beyari (2023) has specifically analyzed the use of different functions in social media, including private chat, group chat, browsing posts, playing games, media sharing, advertising, and behaviors such as likes, comments, and followers. Other research has focused on adolescents' feelings about social media use, including self-expression, social comparison, connection pressure, social engagement, and cyberbullying, when they navigate the information in a digital age and learn how to use it (Popat & Tarrant, 2023). It is the diversity of these variables that provides a rich perspective for understanding how social media use affects mental health.

Additionally, multiple reviews pointed out that there is a significant association between social media use and adolescent depression and suicidal behavior (Boer et al., 2021; Huang et al., 2022; Shannon et al., 2022; Vidal et al., 2020). Specifically, a significant relationship was also shown between social network use disorders and symptoms of depression and anxiety (Hussain et al., 2020; Zhang et al., 2019). In addition, excessive screen use is strongly associated with mental health problems—such as anxiety and depression (Santos et al., 2023)—while smartphone usage characteristics are also associated with decreased sleep quality (Huang et al., 2020). The results show that there is a dose-response relationship between the time of social media use and the risk of depression in adolescents: the longer the time of use, the higher the risk of depression (Liu et al., 2022). Moreover, there is an association between stressful life events and problematic smartphone use, and this relationship is revealed in part through the impact of mental health problems (Zhao et al., 2021). One paper's cross-lag model confirmed a bidirectional relationship between problematic social media use (PSMU) and mental health risk (Zhou et al., 2023). Another study, using hierarchical process analysis (AHP) methods, concluded that certain social media activities—especially those centered on entertainment and communication—can exacerbate the prevalence of mental health issues (Beyari, 2023). These findings provide crucial insights into the far-reaching impact of social media use on adolescent mental health.

2.2. Impact of Social Media Use on Mental Health Risk

In examining the impact of social media on adolescent mental health, it is essential to consider specific dimensions. Much of the research reveals how social media increases the risk of depression, anxiety, and psychological distress in adolescents, and explores in detail the relationship between multiple dimensions of social

media use, such as time, activity, engagement, addiction, and patterns, and mental health problems, including depression, anxiety, and sleep quality (Huang et al., 2022). The study also discusses how these relationships may be exacerbated by negative interactions on social media, particularly changes in social behavior (such as the effects of interpersonal relationships (Yakobus et al., 2023) and changes in perception (such as the effects of self-esteem issues (Huang et al., 2020) and emotional regulation (Yakobus et al., 2023), which increase mental health risks. Some literature suggests that overuse of social media may lead to cognitive and emotional distortions that further increase mental health risks (Zhou et al., 2023), especially in the context of cyberbullying and social comparisons (Zhao et al., 2021).

A large body of literature employs cross-sectional research methods, which analyze population data at a specific point in time or provide insight into the personal experiences of respondents. This type of research generally finds a correlation between social media use and the frequency of their use (Li et al., 2018) and an increased risk of mental health problems, and explores how these behaviors contribute to worsening mental health (Huang et al., 2022). Studies have shown that high frequency of social media use is associated with higher rates of depression and suicidal tendencies (Zhao et al., 2021).

Building on these methodological insights, additional research has explored specific behaviors that increase mental health risks and shed light on the complex interplay between problematic social media use and mental health conditions by utilizing quantitative data analysis and longitudinal research. One study relied on quantitative data and statistical models to analyze the relationship between problematic social media use (PSMU) and mental health, pointing to links between PSMU and different types of mental health problems such as depression, stress, and loneliness through cross-sectional studies (Hussain et al., 2020). The study also used longitudinal research methods to assess the interaction between social media use and mental health status through long-term follow-up, in particular using a model across time nodes to test the interaction between social media use and mental health problems (Hussain et al., 2020). Another study provided a cross-sectional analysis of the relationship between different types and patterns of social media behavior and mental health states such as depression, anxiety, and suicidal tendencies. The study also highlights the importance of conducting longitudinal studies to explore how social media use habits affect mental health over time, pointing to the importance of analysis of data at different points in time to understand this relationship (Huang et al., 2022). Previous research consistently demonstrates that higher frequency, addictive tendencies, and specific patterns of social media use are closely linked to increased mental health risks.

2.3. Mental Health Risk among Chinese Adolescents

Chinese adolescents are the focus of this study due to unique societal pressures and cultural values, such as academic competition and cultural expectations. In

previous literature, the impact of social media use on mental health issues such as depression and anxiety has been extensively explored (Hussain et al., 2020; Keles et al., 2020). This literature argues that the length of social media use, the nature of the activity, the level of engagement, and possibly addictive behavior are all strongly associated with increased mental health risk. In addition, the structure of social networks, such as the strength and quality of support systems, also has an important impact on adolescents' mental health. Depression and suicidal behavior are strongly associated with unhealthy patterns of social media use.

In this regard, several studies have specifically looked at the impact of cyberbullying and sexual abuse on social media, revealing how these behaviors can exacerbate mental health problems for victims, especially among adolescents (Popat, & Tarrant, 2023). In addition, social media use has also been found to be associated with decreased sleep quality, including disrupted sleep and delayed sleep duration, which negatively impacts adolescents' mental and physical health (Kaur et al., 2022).

Interestingly, some studies have also underscored the potential benefits of non-screen activities, such as sports and cultural activities, in combating depression, which improve adolescents' mental health by promoting social interaction and physical activity (Li et al., 2018). While much of the literature focuses on a broad group of adolescents—typically between the ages of 12 and 18—some studies focus specifically on undergraduates, especially first-year undergraduates in China. Notably, studies on undergraduates highlight significant adjustment challenges and social pressures. For example, two studies (Zhao et al., 2021; Zhou et al., 2023) highlight the difficulties these students may encounter in adjusting to college life. One article mentions a three-wave longitudinal study involving Chinese undergraduate students, focusing specifically on the mental health risks of these first-year undergraduates (Zhou et al., 2023). Another paper evaluated life events encountered by undergraduates at Wenzhou Medical University over the past year—and their impact on suicidal ideation—through a three-wave longitudinal survey, highlighting the mental health challenges undergraduates face during critical life transitions (Zhao et al., 2021). Chinese adolescents exhibit similar mental health risks associated with social media use, such as increased anxiety and depression; however, societal pressures and cultural expectations unique to China may amplify these effects.

In all, previous studies highlight the complex interplay between social media use and mental health, revealing how a multifaceted approach can be taken to understanding and responding to increasing mental health issues among adolescents and young adults. Of course, even though Chinese adolescents share many mental health challenges associated with social media use, the added influence of cultural expectations and rapid technological integration in China offers a distinct lens for analysis.

Based on the preceding analysis, this study proposes the following research questions:

RQ1: How does social media use affect mental health risks such as depression,

anxiety, and stress among Chinese adolescents?

RQ2: What specific aspects of social media use (e.g., frequency, content type, interaction patterns) most significantly contribute to mental health risks in this population?

RQ3: How do Chinese adolescent students perceive and manage the mental health impacts associated with social media use?

3. Methods

3.1. Research Design

In November 2024, this study employed one set of focus group discussions consisting of 5 students and 10 semi-structured in-depth interviews. The focus group discussion lasted approximately 1 hour, while each in-depth interview lasted about 30 to 45 minutes.

In-depth interviews aim to gather profound insights and understanding by starting with everyday perceptions, explanations, and interpretations; they further strive to investigate the contextual boundaries surrounding these experiences or perceptions, ultimately revealing aspects that are often concealed from ordinary awareness or introspection (Johnson & Rowlands, 2012).

Focus group discussions are a qualitative research approach used to collect insights into participants' experiences, ideas, and beliefs through interactive discussions (Kim & Lee, 2017). Focus group discussions belong to one of the most utilized research methods in the social sciences (Stewart & Shamdasani, 2014).

3.2. Participants

Participants were selected through purposive sampling. Purposive sampling was selected for this study to ensure the inclusion of participants with specific characteristics that align with the research objectives. The participants of the in-depth interview are sophomores, between 19 and 20 years old, with slightly more female students than male students. They come from different majors, and please refer to **Table 1** for details. The focus was on Chinese adolescents, particularly university sophomores aged 19 - 20, as they were in a critical transitional phase from high school to college. This age group is uniquely positioned to reflect on their adolescent experiences and discuss how social media use impacted their mental health during high school and their initial years of university life.

The small sample size of 10 interviewees and 5 focus group participants presents strengths for this study: Qualitative research with a small sample size enables the collection of detailed, in-depth insights. The study's focus on a manageable number of participants allowed for comprehensive exploration of their experiences, perceptions, and behaviors regarding social media use and mental health. The smaller sample size facilitated the identification and interpretation of nuanced themes, such as the role of social comparison and approval-seeking behaviors in influencing mental health risks.

Purposive sampling allows for theoretical representativeness (Rai & Thapa,

2015; Nyimbili & Nyimbili, 2024). The participants' shared experiences with social media and mental health challenges provide insights into broader trends and commonalities among Chinese adolescents. Additionally, the diversity in academic majors and gender ensures that the sample includes a range of viewpoints, behaviors, and coping mechanisms. These insights may resonate with a larger population facing similar socio-cultural and technological influences.

Table 1. Information of members of in-depth interview.

Depth Interviewee Respondents	Age	Gender	Major
Depth Interviewee 01	19	Female	Design
Depth Interviewee 02	19	Male	Finance
Depth Interviewee 03	19	Female	Business Administration (U.S.-China Cooperation)
Depth Interviewee 04	19	Female	German
Depth Interviewee 05	20	Female	Revenue
Depth Interviewee 06	19	Female	Design
Depth Interviewee 07	19	Female	Business Administration (U.S.-China Cooperation)
Depth Interviewee 08	20	Male	Finance
Depth Interviewee 09	19	Female	Finance
Depth Interviewee 10	19	Female	Design

The members interviewed in the focus group are sophomores, between 19 and 20 years old, and the proportion of male and female students is basically the same. They come from different majors respectively. Please refer to **Table 2** for details.

Table 2. Information of members interviewed in focus group.

Focus Group Respondents	Age	Gender	Major
Focus Group Interviewee 01	19	Female	Accounting
Focus Group Interviewee 02	19	Male	Electric engineering (German)
Focus Group Interviewee 03	19	Male	Business Administration (U.S.-China Cooperation)
Focus Group Interviewee 04	19	Male	Design
Focus Group Interviewee 05	20	Female	Business Administration (U.S.-China Cooperation)

3.3. Interview Questions

In the in-depth interview, the interviewer first asked each interviewee to introduce their experience of using social media in their senior year of high school (including frequency of use, psychological impact, influence of social comparison on self-identity and coping strategies), challenges in the transition from senior year to freshman year, and the role of social media in this process. The experience of

social media use in freshman year (including frequency of use, psychological impact, influence of social comparison on self-identity and coping strategies), as well as the comparison and reflection of their two stages. They were also asked to give college-going high school students some advice to help them better adapt to their new social environment and manage the impact of social media on their mental health. It also suggests how schools or society can help young people cope with the stress of social media use at different stages.

In the focus group interview, the interviewer first asked each member to introduce their major and social media usage habits (including frequency of use, psychological impact, influence of social comparison on self-identity and coping strategies) in senior year and freshman year and asked the interviewees to share their past and present and discuss what led to their changes. It concludes with the interviewees' plans for their own future social media use and some suggestions to help them better adapt to the new social environment and manage the impact of social media on their mental health.

3.4. Procedure

Before data collection, the research purposes were explained in detail to the participants—who then provided written informed consent. An interview guide was prepared for the study. After obtaining informed consent, participants were briefly introduced to the rules, goals, and objectives of the study, and informed that the discussions and interviews would be recorded. During the discussions and interviews, participants were encouraged to speak freely, and the moderator also made written records.

Focus group discussion and in-depth interviews were conducted, while discussions were audio-recorded, transcribed, and analyzed. The recordings were transcribed word-for-word following a transcription protocol designed for thematic analysis (McLellan et al., 2003; Trippas et al., 2017). After the interviews and focus group, each conversation was transcribed verbatim and reviewed multiple times to gain insight into the participants' perspectives. Confidentiality and anonymity were ensured by excluding their names from the transcripts. All personal or identifiable information was removed to maintain privacy. To verify the accuracy of the transcriptions, they were shared with participants for feedback—which was then incorporated as necessary.

4. Results

The data were analyzed through a qualitative content process by using the inductive method, where codes were identified, grouped, and organized following an inductive approach. Finally, the analysis was used to identify overarching themes. Key statements were highlighted, organized, and categorized into general themes and sub-themes. Data were coded and analyzed for themes using interpretative methods, analyzing the themes that emerged as follows.

4.1. Thematic Analysis of Feedback from High School Students

4.1.1. Frequency and Purpose of Social Media Use

High school students generally use social media in the evenings and weekends after coming home from school, with more frequency on weekends. It can be used for a variety of purposes, from interacting with friends on WeChat or QQ to watching entertainment videos on major video sites like Douyin to relax and pass the time. Some students use social media to search for and collect information about their studies, especially from study videos and problem-solving strategies, or to meet people in the same study circle through social media.

4.1.2. Academic and Emotional Impact

Students expressed the interference of social media on learning, especially the easy distraction during online classes. Some even stay up late using social media. In addition, the use of social media sometimes delays the completion of homework and slows down academic efficiency, which in the long run will make people anxious. Excessive use of social media will also lead to feelings of emptiness and depression, which indirectly affects mental health. While students generally agreed that social media provided a channel for emotional relief and motivation in the high-intensity learning environment of senior year, it also triggered feelings of anxiety and dissatisfaction, such as comparison and envy, especially when seeing academic achievements and social activities shared by peers.

For example, participant 1 from the deep interview highlighted that the use of social media during high school mainly caused academic-related anxiety rather than direct emotional distress like sadness or depression. Participant 1 noted being highly curious and engaged in gossip with friends on social media, which often occurred while others were multitasking, such as completing assignments. This led to a situation where the participant fell behind on academic tasks, indirectly contributing to feelings of academic anxiety. Participant 2 from the deep interview mentioned that social media use during high school disrupted their studies and impacted their emotions. They expressed feeling sad or anxious when messages they sent to others were not replied to, highlighting how social interactions on social media could lead to emotional distress. Participant 5 from the deep interview noted that social media use often caused them to become deeply engrossed, which negatively affected their study efficiency. Over time, this led to feelings of anxiety, creating a cycle where they would continue using social media despite feeling anxious about the time spent.

4.1.3. Solutions

Students indicated that when they had negative emotions due to social media, they would reduce their use of visual media and focus more on themselves, process alone, or communicate with friends and families. Some students will make study plans to give themselves the motivation to study.

4.1.4. Social Comparison

Social comparison exists in some high school students, and those who don't

regularly check their moments are less likely to compare themselves with others. Social comparisons often occur when the lives and achievements of peers are observed through social media, leading to feelings of envy, but it is not likely to lead to a decline in self-worth. Instead, it motivates students to strengthen their self-awareness, discover their shortcomings, and make them work hard. Social comparisons can affect a minority's state of confidence, leaving them doubting themselves and anxiously confused about the future.

4.2. Analysis of Freshman Topic

4.2.1. Changes in Usage Patterns

University life has brought more freedom and the need to use social media has become greater, so the time and frequency of social media use has generally increased. The new environment and looser academic arrangements led students to spend more time socializing and having fun online, rather than “viciously” playing on their phones, and occasionally using social media to study.

4.2.2. Develop New Social Connections

While much of life is offline, social media is still crucial to helping freshmen integrate into college life, and many students make new social connections and friends by participating in clubs and activities. At the same time, they will also add the contact information of the campus wall to integrate into the new campus.

4.2.3. Mental Health Impact

Freshmen usually say that compared with high school, they are less dependent on social media in college and use it more rationally, but they still suffer from anxiety and pressure due to various information such as learning and internship, and some people have slight internal friction due to the likes and comments of friends. Or after entering the university, life suddenly becomes rich, and sometimes there will be an inexplicable vanity in social life, even if the heart is uncomfortable, the whole person is very tired, but also to establish some false connections with people who do not like.

4.2.4. Constant Social Comparison

Although the frequency of social comparison has decreased, it still exists. First-year students pay more attention to social comparisons related to their studies and careers, especially the academic achievement and career development of their peers. Sometimes they envy the lives of others, but they try to avoid too many comparisons on social media and focus on their personal growth and studies.

4.3. Advice

4.3.1. Advice to High School Students about Entering College

Advice for college-bound high school students focuses on the judicious use of social media and fostering authentic relationships, emphasizing the importance of balancing online interactions with real-life experiences. Students are advised to focus on personal growth and self-awareness and avoid unnecessary comparisons

that can lead to stress and internal conflict. The overall recommendation is to engage with social media in a way that promotes well-being and personal development, without allowing it to overshadow real-world experiences and achievements.

4.3.2. Help Teenagers Cope with the Pressure of Social Media Use at Different Stages

It is recommended that schools and society provide structured support to help students cope with the challenges of social media use. This includes implementing educational programs that teach responsible use, promoting activities that encourage real-life interactions, and providing mental health support to cope with the stress of online stress. By regulating social media content and promoting positive online environments, schools and society can help ensure that social media serves as a tool for positive engagement, rather than a source of anxiety.

4.4. Analysis of Focus Group

Insights gained from focus group interviews revealed that students generally view social media as a double-edged sword, with both potential benefits and possible harms. During the discussion, students shared how they have dealt with the negative emotions and stress caused by reducing their use of social media or changing their habits. They emphasize that in a psychologically immature stage, over-reliance on social media can easily lead to internal friction and a distorted sense of self-worth. In the feedback of high school students and freshmen on social media use, we can see a significant impact on academic, emotional, and interpersonal relationships.

They use social media in high school, usually under the supervision of the home and school environment, mainly for entertainment, relaxation and simple social interaction, but frequent comparison and excessive consumption of information may also cause anxiety and other negative emotions. Strategies to address these issues include limiting usage time, choosing what they are going to focus on, and enjoying themselves more in active participation in real-life activities to reduce dependence on the virtual world.

In contrast, freshmen, faced with a more Open University environment, use social media more frequently and autonomously, becoming an important tool for building new relationships and integrating into campus culture. New students learn and adapt quickly to new environments through social media, but also face ongoing social comparison and mental health challenges caused by social media. They tend to balance their impact by adjusting usage habits, increasing real-life interactions and engagement, and using social media as a platform for learning and information exchange. This change reflects the maturation and adjustment of the way social media personas are perceived and used during the transition from high school to college.

4.5. Implication of Combined Findings

These combined findings highlight the profound impact of social media on

adolescent mental health and social adjustment, as well as the shifting behavior of students' social media use during the transition from high school to college. As the social environment changes, social media plays an increasingly complex role in helping students adapt to new environments, build new relationships, and grow personally.

5. Discussion

5.1. Key Findings of This Study

The purpose of this study is to explore how social media use impacts mental health risks among Chinese adolescents. The findings of this study indicate that high school students primarily use social media for entertainment and learning but often face anxiety and dissatisfaction due to social comparisons, while college freshmen use it more extensively to adapt to new environments, though they still encounter challenges like academic stress and superficial connections.

Results generally answer the research questions. The use of social media significantly affects the mental health of Chinese adolescents. Social media is frequently and excessively used by high school students. Social comparisons on social media might trigger feelings of anxiety and dissatisfaction especially when they are distracted or stay up late during study or when they see academic achievements or social activities shared by peers. College freshmen who have more freedom to use social media have also faced anxiety over academic and career-related messages, internal friction from "likes" or comments, and fatigue and stress from maintaining superficial social connections (Research Question 1). There are several aspects of social media use that most significantly contribute to mental health risks in this population: First, high frequency of use, especially at night and on weekends, can easily lead to academic distraction and lack of sleep. Second, exposure to academic achievements, career-related developments, and social events can trigger jealousy, anxiety, and self-doubt. Third, when compared with peers, it may aggravate the lack of self-confidence, or it may motivate the individual to strive (Research Question 2). Many Chinese adolescents see social media as both an important tool for emotional release and entertainment, and a potential source of negative emotions. High school students often see social media as a tool to escape from stress, while college students are using social media in a more autonomous environment to build new social relationships and integrate themselves into campus lives. Their solutions to deal with negative effects include avoiding content that may trigger negative emotions or excessive comparisons, limiting time spent and focusing on real-life activities, developing a study plan or focusing on personal growth, and communicating with friends and families (Research Question 3).

5.2. Compare and Contrast to the Results of Related Research

The association of social media use with negative mental health effects is highly consistent with existing literature. Many studies (Keles et al., 2020; Vidal et al.,

2020) pointed out that high-intensity social media use is closely related to increased risk of depression, particularly significant in adolescents and young women. Addictive social media use behaviors are associated with mental health problems (Gupta et al., 2022). In terms of the impact of positive effects, most studies (Vidal et al., 2020; Li et al., 2018) only focus on the negative effects of social comparison, while this study systematically explores the potential positive effects of social comparison on adolescents with different psychological states for the first time. This study further emphasizes the significant negative impact of this addictive behavior on mental health.

Compared with previous studies, this study is consistent with the Liu et al. (2022) meta-analysis on social media use time and mental health, in that frequent use (e.g., more than 2 hours per day) significantly increases the risk of depression, especially among adolescents. As for the mediating effect of social comparison, like the study of Kaur et al. (2022), this study also found that upward social comparison is an important mediator of mental health problems, especially for individuals with low self-esteem.

There are some differences, of course. While some studies (Popat & Tarrant, 2023) emphasized that passive use is riskier, this study suggests that active engagement (such as positive interaction) is more protective of mental health, and that high-frequency use alone may not lead to negative effects. As a result of cultural background differences, Chinese adolescents are under high educational pressure and social expectations, and social media functions are more used for academic-related activities. Therefore, the manifestation of mental health risks is different from Western studies (such as paying more attention to academic pressure and social expectations).

5.3. Compare and Contrast to Similar Studies Conducted in Other Countries or Regions in China

In terms of similar studies conducted in other countries or regions in China, Yu and Du (2022) delved into the frequency of social networking sites/apps usage and social networking addiction—along with the mental health condition and health-related quality of life—in Hong Kong SAR adolescent students. Both Yu and Du (2022) and this study illuminate the significant link between social media use and mental health issues, such as depression, anxiety, and stress, among adolescents. Yu and Du (2022), examining Hong Kong SAR adolescents during the pandemic, reported alarming prevalence rates of these issues, with excessive social networking use and addiction identified as crucial drivers. Similarly, this study on Chinese university students reveals those problematic social media behaviors—including social comparison and approval-seeking—intensify psychological stress and amplify the risks of depression and anxiety. Both studies underscore the far-reaching impact of social media on adolescent mental health.

A noteworthy, shared finding is the role of social media addiction and usage duration in exacerbating mental health risks. Yu and Du (2022) observed that adolescents spending over three hours daily on social networking sites faced markedly

higher rates of depression, anxiety, and stress compared to those with shorter usage durations. Likewise, this study pinpoints that high-frequency social media use—particularly during nights or weekends—triggers academic distractions, sleep disruptions, and emotional distress. Both studies highlight the urgent need to manage screen time and address addictive tendencies to alleviate these adverse effects.

While both studies reveal common concerns, they differ in context and methodology: Yu and Du (2022) conduct a comprehensive large-scale quantitative analysis of Hong Kong SAR adolescents during the pandemic, linking social media use to pandemic-induced stressors. This study, through a qualitative approach, unveils the evolving role of social media in the developmental transition from high school to college among mainland Chinese students. This study provides profound insights into coping mechanisms and the role of social comparison, offering a deeper understanding of how social media impacts adolescents at pivotal life stages.

5.4. The Significance of the Results of This Study

The findings of this study are important primarily for its findings on the impact of social media use on mental health risks among Chinese adolescents. Unlike some traditional studies that only focus on the one-way effects of social media on mental health, this study adds a bidirectional perspective, suggesting that mental health problems (such as depression) may exacerbate the tendency to addictive use, which in turn further aggravates depressive symptoms. It also highlights the risks of specific functions. For example, functions such as likes and comments are more likely to induce social comparison and stress, while active engagement has relatively little negative impact on mental health. This refined perspective provides a reference for designing more targeted interventions.

Conventional wisdom (Keles et al., 2020) suggested that high-frequency social media use is often accompanied by negative psychological effects, especially in passive use (such as simply browsing or observing the lives of others). But the new findings of this study suggested that assessing frequency alone is not enough to fully understand its psychological impact, and that the manner of use is key to affecting mental health.

Previous studies (Huang et al., 2022) generally emphasized the negative cycle between social media use and stress, but this study found that under moderate management and use, adolescents can effectively alleviate the negative impact of social media. This active management behavior was more pronounced among older students, suggesting that the effects of social media use on mental health may change dynamically with age and self-regulation. This study found that when teenagers feel situational pressure brought by social media (such as information overload, academic competition, etc.), they tend to adopt self-regulation strategies, such as temporarily shutting down applications and reducing online time; shift to offline activities (such as sports, interacting with friends); create a time management plan to reduce stress, etc.

The study sheds light on how the nature of social media influence shifts from high school to college. While both groups use social media extensively, the nature of its effects differs—high school students are more affected by social comparison and distraction, while college students are more affected by social identity pressure and career-related content.

5.5. Recommendations for Schools and Families

Based on the results and analysis, schools should implement comprehensive workshops that focus on digital literacy—teaching students to navigate social media responsibly and critically. These programs should include hands-on activities, such as identifying misinformation, understanding privacy settings, and recognizing the signs of social media addiction. Integrating digital literacy topics into the school curriculum would ensure continuous learning; this can be paired with age-appropriate lessons on mental health, emphasizing how excessive social media use—and behaviors like social comparison—can affect emotional well-being.

In addition, families play a pivotal role in supporting adolescents' mental health and digital literacy. Parents should be encouraged to set healthy boundaries for social media use at home—for instance, by establishing screen-free zones or designated offline hours. To assist parents, schools could provide seminars on understanding adolescents' digital habits and practical strategies for guiding them without being overly restrictive. Encouraging open communication within families about online experiences and emotions can help adolescents process their feelings and seek support when needed. Moreover, creating a shared digital contract—where family members agree on rules for online behavior—fosters accountability and mutual respect.

Ultimately, both schools and families should promote activities that reduce dependence on social media while enhancing mental well-being. Schools could offer extracurricular programs—such as sports, arts, or peer-led support groups—that provide students with offline outlets for social interaction and emotional expression. Families should encourage adolescents to engage in hobbies and activities that promote personal growth and meaningful connections. Additionally, creating access to counselors or mental health resources within schools ensures that students have professional support when coping with online stress or anxiety.

5.6. Limitations of This Study

As with all studies, this one had several limitations. One notable limitation of this study is the relatively modest sample size—which may undermine both the internal and external validity of the findings. The research included only one focus group discussion with five participants and ten in-depth interviews, whose limited demographic scope reduces the generalizability of the findings to other groups, underlining a major criticism of qualitative research. The small sample size restricts the ability to generalize findings to the broader population of Chinese adolescents. Participants were selected from a single university, limiting socio-economic,

cultural, and regional diversity. Purposive sampling focuses on a specific subset of the population, potentially overlooking other demographic or psychological variations in adolescent experiences with social media. While qualitative studies aim for thematic saturation, the small sample size may not have captured the full spectrum of experiences and perspectives, especially in a diverse population like Chinese adolescents.

Another limitation is that, although qualitative methodology provides rich and detailed insights, it is inherently subject to potential biases in data interpretation due to its perspective-based nature. Moreover, the study's reliance on self-reported data introduces the possibility of social desirability bias, where participants may underreport or overstate certain behaviors or feelings to align with perceived expectations—thereby skewing the accuracy of the findings (Larson, 2019; Tan et al., 2021). This subjectivity may infiltrate the coding and topic-generation stages of manual thematic analysis, thereby distorting the findings. Therefore, cross-referencing the collected data with the quantitative data is crucial while doing a qualitative study.

5.7. Future Research

Future research should address the issue of transferability by including a more diverse sample. Most studies can benefit from transferability, which encourages research readers to draw parallels between study components and their personal experiences. Studies could expand beyond a single university to include participants from varied socio-economic, cultural, and educational backgrounds. To enhance the transferability of findings, future studies should include participants from diverse socio-economic and regional backgrounds across China. Adolescents in rural and urban areas, as well as those from different income levels, may experience the impact of social media on mental health differently due to varying access to technology, cultural contexts, and support systems. Including such diverse groups would allow for a more comprehensive understanding of social media's influence and make the findings more generalizable to the broader adolescent population in China.

Future studies should also employ mixed-methods approaches that combine qualitative insights with quantitative data. A common research technique nowadays is mixed methodologies research, which uses a combination of qualitative and quantitative data to provide a deeper investigation of a research subject. Quantitative measures, such as surveys and behavioral tracking, could complement qualitative findings and provide robust evidence for the associations between social media use and mental health risks. While doing a qualitative study, it's important to cross-reference the data obtained with the quantitative data.

6. Conclusion

This study aims to explore the impact of social media use on mental health risk among Chinese adolescents. The findings support the idea that there is a significant

association between social media use and mental health problems and find that the relationship is complex and multifactorial dependent. In addition, this study finds that interaction patterns and content types on social media may mediate this relationship, and in particular, social comparison and the pursuit of praise may exacerbate psychological stress in adolescents. Therefore, balanced social media use and proper digital literacy education for adolescents may help improve well-being at the personal and relationship levels. Given the negative personal and relationship outcomes of social media communication avoidance and mental health issues, establishing healthy social media use habits and encouraging open communication is critical to challenging and addressing relationship dilemmas. The results of this paper provide a scientific basis for how schools and families can help adolescents cope with the challenges posed by social media, especially in terms of enhancing self-regulation and psychological resilience in the face of social media influences. The collaboration between government and social media platforms, as well as the mental health resources and information that social media platforms provide, is important for promoting public mental health in the digital age.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Aichner, T., Grünfelder, M., Maurer, O., & Jegeni, D. (2021). Twenty-Five Years of Social Media: A Review of Social Media Applications and Definitions from 1994 to 2019. *Cyberpsychology, Behavior, and Social Networking*, 24, 215-222. <https://doi.org/10.1089/cyber.2020.0134>
- Beyari, H. (2023). The Relationship between Social Media and the Increase in Mental Health Problems. *International Journal of Environmental Research and Public Health*, 20, Article 2383. <https://doi.org/10.3390/ijerph20032383>
- Boer, M., Stevens, G. W. J. M., Finkenauer, C., de Looze, M. E., & van den Eijnden, R. J. J. M. (2021). Social Media Use Intensity, Social Media Use Problems, and Mental Health among Adolescents: Investigating Directionality and Mediating Processes. *Computers in Human Behavior*, 116, Article 106645. <https://doi.org/10.1016/j.chb.2020.106645>
- Carr, C. T., & Hayes, R. A. (2015). Social Media: Defining, Developing, and Divining. *Atlantic Journal of Communication*, 23, 46-65. <https://doi.org/10.1080/15456870.2015.972282>
- Ghanayem, L. K., Shannon, H., Khodr, L., McQuaid, R. J., & Hellemans, K. G. C. (2024). Lonely and Scrolling during the COVID-19 Pandemic: Understanding the Problematic Social Media Use and Mental Health Link among University Students. *Frontiers in Psychiatry*, 15, Article 1247807. <https://doi.org/10.3389/fpsyt.2024.1247807>
- Gupta, C., Jogdand, D. S., & Kumar, M. (2022). Reviewing the Impact of Social Media on the Mental Health of Adolescents and Young Adults. *Cureus*, 14, e30143. <https://doi.org/10.7759/cureus.30143>
- Hollis, C. (2022). Youth Mental Health: Risks and Opportunities in the Digital World. *World Psychiatry*, 21, 81-82. <https://doi.org/10.1002/wps.20929>
- Huang, Q., Li, Y., Huang, S., Qi, J., Shao, T., Chen, X. et al. (2020). Smartphone Use and

- Sleep Quality in Chinese College Students: A Preliminary Study. *Frontiers in Psychiatry*, 11, Article 352. <https://doi.org/10.3389/fpsy.2020.00352>
- Huang, Q., Lin, S., Li, Y., Huang, S., Liao, Z., Chen, X. et al. (2022). Suicidal Ideation Is Associated with Excessive Smartphone Use among Chinese College Students. *Frontiers in Public Health*, 9, Article 809463. <https://doi.org/10.3389/fpubh.2021.809463>
- Hussain, Z., Wegmann, E., Yang, H., & Montag, C. (2020). Social Networks Use Disorder and Associations with Depression and Anxiety Symptoms: A Systematic Review of Recent Research in China. *Frontiers in Psychology*, 11, Article 211. <https://doi.org/10.3389/fpsyg.2020.00211>
- Johnson, J. M., & Rowlands, T. (2012). The Interpersonal Dynamics of In-Depth Interviewing. In *The SAGE Handbook of Interview Research: The Complexity of the Craft* (pp. 99-114). Sage Publications. <https://doi.org/10.4135/9781452218403.n7>
- Karim, F., Oyewande, A. A., Abdalla, L. F., Chaudhry Ehsanullah, R., & Khan, S. (2020). Social Media Use and Its Connection to Mental Health: A Systematic Review. *Cureus*, 12, e8627.
- Kaur, S., Kaur, K., & Verma, R. (2022). Impact of Social Media on Mental Health of Adolescents. *Journal of Pharmaceutical Negative Results*, 779-783.
- Keles, B., McCrae, N., & Grealish, A. (2020). A Systematic Review: The Influence of Social Media on Depression, Anxiety and Psychological Distress in Adolescents. *International Journal of Adolescence and Youth*, 25, 79-93. <https://doi.org/10.1080/02673843.2019.1590851>
- Kim, J., & Lee, S. (2017). Using Focus Group Interviews to Analyze the Behavior of Users of New Types of Tobacco Products. *Journal of Preventive Medicine and Public Health*, 50, 336-346. <https://doi.org/10.3961/jpmph.17.052>
- Larson, R. B. (2019). Controlling Social Desirability Bias. *International Journal of Market Research*, 61, 534-547. <https://doi.org/10.1177/1470785318805305>
- Li, J., Mo, P. K. H., Lau, J. T. F., Su, X., Zhang, X., Wu, A. M. S. et al. (2018). Online Social Networking Addiction and Depression: The Results from a Large-Scale Prospective Cohort Study in Chinese Adolescents. *Journal of Behavioral Addictions*, 7, 686-696. <https://doi.org/10.1556/2006.7.2018.69>
- Liu, M., Kamper-DeMarco, K. E., Zhang, J., Xiao, J., Dong, D., & Xue, P. (2022). Time Spent on Social Media and Risk of Depression in Adolescents: A Dose-Response Meta-Analysis. *International Journal of Environmental Research and Public Health*, 19, Article 5164. <https://doi.org/10.3390/ijerph19095164>
- McLellan, E., MacQueen, K. M., & Neidig, J. L. (2003). Beyond the Qualitative Interview: Data Preparation and Transcription. *Field Methods*, 15, 63-84. <https://doi.org/10.1177/1525822x02239573>
- Nyimbili, F., & Nyimbili, L. (2024). Types of Purposive Sampling Techniques with Their Examples and Application in Qualitative Research Studies. *British Journal of Multidisciplinary and Advanced Studies*, 5, 90-99. <https://doi.org/10.37745/bjmas.2022.0419>
- Popat, A., & Tarrant, C. (2023). Exploring Adolescents' Perspectives on Social Media and Mental Health and Well-Being—A Qualitative Literature Review. *Clinical Child Psychology and Psychiatry*, 28, 323-337. <https://doi.org/10.1177/13591045221092884>
- Rai, N., & Thapa, B. (2015). A Study on Purposive Sampling Method in Research. *Kathmandu School of Law*, 5, 8-15.
- Santos, R. M. S., Mendes, C. G., Sen Bressani, G. Y., de Alcantara Ventura, S., de Almeida Nogueira, Y. J., de Miranda, D. M. et al. (2023). The Associations between Screen Time and Mental Health in Adolescents: A Systematic Review. *BMC Psychology*, 11, Article

- No. 127. <https://doi.org/10.1186/s40359-023-01166-7>
- Schønning, V., Hjetland, G. J., Aarø, L. E., & Skogen, J. C. (2020). Social Media Use and Mental Health and Well-Being among Adolescents—A Scoping Review. *Frontiers in Psychology, 11*, Article 1949. <https://doi.org/10.3389/fpsyg.2020.01949>
- Shannon, H., Bush, K., Villeneuve, P. J., Hellemans, K. G., & Guimond, S. (2022). Problematic Social Media Use in Adolescents and Young Adults: Systematic Review and Meta-Analysis. *JMIR Mental Health, 9*, e33450. <https://doi.org/10.2196/33450>
- Sharma, A., & Tyszka, A. (2023). Understanding the Mental Health of Occupational Therapy Students during the COVID-19 Pandemic. *Journal of Occupational Therapy Education, 7*, Article 3. <https://doi.org/10.26681/jote.2023.070103>
- Stewart, D. W., & Shamdasani, P. N. (2014). *Focus Groups: Theory and Practice*. Sage Publications.
- Tan, H. C., Ho, J. A., Teoh, G. C., & Ng, S. I. (2021). Is Social Desirability Bias Important for Effective Ethics Research? A Review of Literature. *Asian Journal of Business Ethics, 10*, 205-243. <https://doi.org/10.1007/s13520-021-00128-9>
- Trippas, J. R., Spina, D., Cavedon, L., & Sanderson, M. (2017). A Conversational Search Transcription Protocol and Analysis. In *Proceedings of Sigir 1st International Workshop on Conversational Approaches to Information Retrieval*.
- Vidal, C., Lhaksampa, T., Miller, L., & Platt, R. (2020). Social Media Use and Depression in Adolescents: A Scoping Review. *International Review of Psychiatry, 32*, 235-253. <https://doi.org/10.1080/09540261.2020.1720623>
- Wang, A., Wang, Z., Zhu, Y., & Shi, X. (2022). The Prevalence and Psychosocial Factors of Problematic Smartphone Use among Chinese College Students: A Three-Wave Longitudinal Study. *Frontiers in Psychology, 13*, Article 877277. <https://doi.org/10.3389/fpsyg.2022.877277>
- Yakobus, I. K., Suat, H., Kurniawati, K., Zulham, Z., Pannyiwi, R., & Anurogo, D. (2023). The Use Social Media's on Adolescents' Mental Health. *International Journal of Health Sciences, 1*, 425-438. <https://doi.org/10.59585/ijhs.v1i4.161>
- Yu, L., & Du, M. (2022). Social Networking Use, Mental Health, and Quality of Life of Hong Kong SAR Adolescents during the COVID-19 Pandemic. *Frontiers in Public Health, 10*, Article 1040169. <https://doi.org/10.3389/fpubh.2022.1040169>
- Zhang, J., Hu, H., Hennessy, D., Zhao, S., & Zhang, Y. (2019). Digital Media and Depressive Symptoms among Chinese Adolescents: A Cross-Sectional Study. *Heliyon, 5*, e01554. <https://doi.org/10.1016/j.heliyon.2019.e01554>
- Zhao, C., Ding, N., Yang, X., Xu, H., Lai, X., Tu, X. et al. (2021). Longitudinal Effects of Stressful Life Events on Problematic Smartphone Use and the Mediating Roles of Mental Health Problems in Chinese Undergraduate Students. *Frontiers in Public Health, 9*, Article 752210. <https://doi.org/10.3389/fpubh.2021.752210>
- Zhou, W., Yan, Z., Yang, Z., & Hussain, Z. (2023). Problematic Social Media Use and Mental Health Risks among First-Year Chinese Undergraduates: A Three-Wave Longitudinal Study. *Frontiers in Psychiatry, 14*, Article 1237924. <https://doi.org/10.3389/fpsyg.2023.1237924>