

How does Social Media Use Affect College Students' Psychological, Subjective, and Social Well-being: The Mediating Role of Self-esteem

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Abstract. This research examines the impact of social media use on the psychological, subjective, and social well-being of college students, with a focus on the mediating role of self-esteem. Social media has become an integral part of college students' lives, offering platforms for information sharing, communication, and social interaction. However, the effects of social media on students' well-being remain controversial. Some studies suggest that social media enhances social support, relationships, and belongingness, leading to improved mental health and subjective well-being. Conversely, other research highlights negative emotions, social anxiety, and feelings of loneliness resulting from social media use. Moreover, excessive attention to others' social performances on social media may negatively impact college students' self-esteem. This study aims to explore the relationship between social media use and the three dimensions of well-being while investigating the mediating role of self-esteem. By understanding the mechanisms underlying social media's influence on students' well-being, this research can provide insights for promoting healthier social media use among college students and improving their mental health and happiness.

Keywords: Social media use, college students, psychological well-being, subjective well-being, social well-being, self-esteem.

1. Study context and motivation

As an emerging communication tool in modern society, social media has penetrated deeply into People's Daily life, especially among college students. It is a very popular network virtual community and interactive platform in the era of mobile Internet. On social media, people can create information, share experiences and exchange views. At present, social media platforms include social networking sites, Weibo, wechat, Qzone, Zhihu, Tieba and so on. [1] Due to their strong Internet ability and frequent use of social media, college students have become the main users of social media. The new generation of young people is increasing the amount of time they spend participating in online social platforms, playing video games, exchanging information and immersing themselves in various forms of social media. [2] In this context, the use of social media may have a significant impact on college students' happiness.

The study of happiness involves three different kinds of happiness feelings, namely psychological happiness, subjective happiness and social happiness. Past studies have explored the effects of social media use on college students' psychology and subjective well-being. Some studies have found that social media use can improve college students' sense of social support and enhance their social relationships and sense of belonging, thereby improving their mental health and subjective well-being. However, other studies have pointed to a link between social media use and negative emotions, social anxiety, and feelings of loneliness among college students. In addition, social media use may cause college students to pay too much attention to the social performance of others, which may not match their own evaluation and approval, and thus affect their self-esteem.

Research results on the potential consequences of social media use on individual well-being in specific contexts, especially among Chinese college students, remain controversial. This is especially true when the concept of happiness has recently been introduced into the study of social well-being,

which has not been fully incorporated into the existing research on social media and college students' well-being. The study points out that it is obviously not comprehensive enough to study happiness only from the perspective of individuals. In order to fully understand the concept of happiness, we need to deeply understand the social relations and social characteristics of college students, that is, to carry out research from the social level. The introduction of the concept of "social well-being" effectively makes up for the deficiency of subjective well-being and psychological well-being, encourages researchers to shift their focus from the happiness view of individual emotions and growth experience to the happiness view of people's social attributes, and helps to explore the overall situation of happiness in a more comprehensive way. [3]

Therefore, this research plan aims to explore the relationship between the use of social media and the three dimensions of psychological, subjective and social well-being of college students, and by adding self-esteem as an intermediary variable, this research hopes to deeply understand the impact mechanism of social media use on individual psychological, subjective and social well-being, and provide scientific basis for college students to use social media more healthily. And ultimately improve their mental health and happiness index.

2. Literature Review

Happiness is a key area of positive psychology research, and the rise of positive psychology in the West has promoted the in-depth, systematic and applied research on happiness. From the perspective of psychology, happiness mainly revolves around the three concepts of psychological well-being, subjective well-being and social well-being.

Psycho-logicalwellbeing (PWB) is based on the realization theory. It emphasizes the realization of human potential and human development, and brings various indicators such as self-acceptance, personal growth, life purpose, good relationship, environmental control, independence, self-actualization and vitality into the research field of happiness. [3] Based on the philosophical viewpoint of realization theory, it emphasizes the realization of individual potential. Its conceptual model focuses on a person's state of psychological well-being, focusing on elements such as positive self-esteem, social service, life purpose, and good interpersonal relationships, which constitute the core elements of psychological well-being. Subjective-well-being (SWB) is an important concept in positive psychology. It is one of the important comprehensive psychological indicators to measure the quality of individual life. [4] This concept emphasizes the subjective experience of well-being, which includes satisfaction with life and positive and negative emotions. Social well-being, by contrast, involves an individual's assessment of his or her relationships with others, groups, and society, as well as his or her own assessment of life circumstances and social functioning. [5] Social happiness refers to an individual's assessment of the quality of his or her relationship with others, groups and society, including five dimensions: social integration, social identity, social contribution, social realization and social harmony. This concept provides a new perspective for modern happiness research. [6]

Multiple studies have pointed out that social media use is closely related to the psychological well-being of college students. First of all, as a social tool, social media has a positive impact on college students' happiness. For example, it can enrich the great. However, studies have also found some negative associations between social media use and college students' happiness. On the one hand, the use of social media may lead to college students' unease and dissatisfaction with their self-image and physical appearance. On social media, people often embellish and display their physical appearance, which brings a kind of self-pressure to college students, making them anxious and dissatisfied with their self-image. On the other hand, social media also tends to trigger social comparison and envy among college students, who may compare themselves with the "perfect life" shown by others, resulting in feelings of self-demeaning. Through "mimicry of me" and "mimicry of him", college students recognize and interact with each other to meet each other's psychological needs. However, the "mimicry self" is not the real self, resulting in narcissism, self-pity, loneliness, vanity and anxiety

caused by "social media dependency disorder". This has become a serious problem related to the healthy growth of college students.

In addition to psychological well-being, social media use also has an impact on college students' subjective well-being and social well-being. The study points out that the subjective well-being of college students is positively correlated with the use of social media. The entertainment and leisure satisfaction obtained through social media communication is regarded as a subjective emotional pleasure. Therefore, from the perspective of entertainment function, social media helps to improve users' subjective well-being to a certain extent. [9] In addition, the use of social media can also improve college students' social happiness. Through social media platforms, college students can more easily participate in social welfare activities and volunteer services, thus enhancing their sense of belonging and satisfaction in society.

However, it should be noted that not all of the above associations are necessarily direct. Self-esteem plays an important mediating role between social media use and well-being. Self-esteem is a relatively stable personality trait. Different individuals have different levels of self-esteem, and it also has a significant impact on individual happiness. [10] Self-esteem is also a person's subjective feelings about their own worth and self-evaluation, which can be affected by the use of social media and others' evaluation of them. Studies have shown that when college students are recognized and appreciated by others on social media, their self-esteem levels rise, which increases their psychological, subjective and social well-being. Conversely, when college students are criticized and negated by others on social media, their self-esteem levels take a hit, which in turn reduces their happiness.

To sum up, social media has a complex impact on college students' psychological, subjective and social well-being. In order to better understand the mechanism of this influence, this study will focus on the mediating role of self-esteem through questionnaires to explore the relationship between college students' self-identity and social media use. It is expected that the results of this study can provide a more comprehensive perspective into the mechanism of social media's impact on college students' happiness. Although this study faces difficulties and challenges in sample selection and data collection, it is expected to summarize relevant conclusions and provide suggestions for college students' rational use of social media in the end.

3. Research objectives

1. Explore the relationship between social media use and college students' psychological well-being: Through in-depth analysis of the interaction between social media use and college students' psychological well-being, we aim to comprehensively understand the specific impact of social media on individual psychological well-being, including depression, anxiety, and ability to cope with pressure.



Figure 1 Social media floods college students' lives

2. Research on the relationship between social media use and subjective well-being of college students: In-depth research on the relationship between social media use and subjective well-being of college students will be conducted to gain a more comprehensive insight into the potential impact of social media on individuals' overall life satisfaction and well-being.

3. To explore the relationship between social media use and college students' social well-being: The possible impact of social media use on college students' social well-being will be studied by introducing the dimension of social well-being. This will help to understand the role of social media in promoting social connection and enhancing social sense of identity.

4. Analyze the mediating role of self-esteem among social media use, mental health, subjective well-being, and social well-being: Through in-depth analysis of the mediating role of self-esteem among social media use, mental health, subjective well-being, and social well-being, we aim to reveal the key role of self-esteem in this complex network of relationships, in order to better understand the mechanism of social media's influence on individual well-being.

4. Research methods and tools

4.1 Questionnaire survey:

4.1.1 Questionnaires on social media use, psychological well-being, subjective well-being, social well-being and self-esteem were developed respectively. Make sure the questions cover different levels of social media experience, psychological state and well-being.

To determine the relationship between social media use and well-being, a questionnaire section on social media use was designed for this study. The questionnaire includes questions on the frequency, duration, purpose and platform of college students' use of social media.

Secondly, the questionnaire adopts widely used measuring tools applicable to college students' psychological well-being, such as Psychological Well-Being Scale (PWBS). The Subjective Well-being Scale (SWB) and the Social Well-being Scale (compiled by Wang Qinghua). These tools have good credit validity and can objectively evaluate the psychological, subjective and social well-being of the subjects. Through these questions, we can understand the behavior characteristics of college students on social media, so as to further explore the mechanism of social media's impact on happiness.

In addition, the research will introduce a self-esteem measurement tool to explore the mediating role of self-esteem between social media use and happiness. Classic self-esteem scales, such as the Rosenberg Self-esteem Scale and the Tennessee Self-esteem Scale, will be used, which have high reliability and validity. The moderating effect of self-esteem on the relationship between social media use and well-being can be better understood through self-esteem measures.

4.1.2 Using the Likert Scale or other appropriate measurement tools, the respondent's responses were assessed in a quantitative manner. Ensure that the question design both provides quantitative data and captures the feelings and perceptions of the individual.

4.2 Data collection:

4.2.1. Send survey invitations to college students by sending online questionnaire links among them. In this way, the privacy of the subjects can be better protected, and it is convenient for the subjects to fill in the questionnaire at any time and place. Consider including students from different grade levels, majors, and backgrounds for a more comprehensive picture.

4.2.2 Collect data on respondents' social media use, including indicators such as frequency of use, duration of use, and purpose of use. This can be achieved through interviews, questionnaires or by obtaining statistical information from social media platforms.

4.3 Statistical Analysis

4.3.1 SPSS statistical software was used for correlation analysis to explore the relationship between social media use and psychological, subjective and social well-being. Analyze whether the use of different social media platforms has different impacts on different dimensions of happiness.

4.3.2 Perform regression analysis to determine the predictive effect of social media use on psychological, subjective and social well-being. Consider using self-esteem as a control variable to more accurately assess the impact of social media.

4.3.3 Conduct mediating effect analysis to verify the mediating effect between self-esteem social media use and happiness.

4.4 Structural equation Modeling (SEM)

4.4.1 Structural equation Modeling (SEM) tools such as AMOS will be used when the study involves multiple variables and mediating relationships.

4.4.2 SEM enables a more comprehensive study of complex relationships between multiple variables, including direct and indirect effects.

4.5 In-depth Interview

Conduct in-depth interviews to gain a deeper understanding of an individual's social media experience and their psychological, subjective, and social well-being. This helps to interpret the questionnaire and quantify the results, providing more detailed and comprehensive information.

5. Expected Contribution

The expected contribution of this study is to provide insight into the mechanisms of social media's impact on college students' psychological, subjective and social well-being, thereby providing a more holistic perspective on well-being. By analyzing the psychological impact of social media on college students, we can better understand the impact of social media on college students' self-esteem and happiness, and provide new ideas and perspectives for relevant research.

First of all, this study will deeply explore the impact of social media on college students' psychological well-being. As an important channel for information dissemination and social communication, social media has a wide and far-reaching impact on the psychological status of college students. Through investigation and statistical analysis, relevant data on the relationship between the degree of social media use and the psychological well-being of college students will be obtained to provide real and credible evidence for the research.

Secondly, this study will focus on analyzing the relationship between social media use and self-esteem of college students. Self-esteem, as the core element of an individual's inner identity and sense of value, plays an important role in the formation of happiness. The correlation between social media use and self-esteem of college students will be explored through scale survey and data analysis, and the mediating role of self-esteem between social media use and happiness will be further verified.

In addition, this study will also put forward suggestions on the rational use of social media for college students. Through an in-depth analysis of the mechanism of the impact of social media use on college students' happiness, we will provide practical guidance for college students on how to better use social media to enhance their happiness, and help them better cope with the pressure and negative effects brought by social media.

6. Time Planning

First year: Literature review, research design, questionnaire preparation and translation.

Year 2: Data collection, preliminary data analysis, and presentation of preliminary results.

Year 3: In-depth data analysis, model revision, results improvement, paper writing and submission.

7. Anticipate difficulties and challenges

7.1 Sample selection: Sample selection is an important issue. Due to the large and diverse population of college students, it is a challenge to select a representative sample and ensure the universality of the research results. At the same time, due to the rapid development and rapid changes of social media, research tools and methods need to keep up with the pace of social media to ensure the accuracy and validity of data.

7.2 Data analysis: There are also some difficulties in data collection. When conducting a questionnaire survey, some respondents may not be willing to provide real information, or there may be preference for answers or vague answers. These problems may have some impact on the results of the research, so corresponding measures should be taken to improve the reliability and validity of the data.

7.3 Measurement of self-esteem: The measurement of self-esteem should also be paid attention to in the research. Self-esteem is a complex psychological concept, and it is a challenging task to accurately measure the self-esteem level of college students and determine the mediating role of self-esteem between social media use and well-being. A variety of scales and methods need to be comprehensively applied to obtain accurate self-esteem levels, and rigorous analysis and interpretation should be carried out.

7.4 Social media: This study also needs to face the diversity and variability of social media use. Different social media platforms and usage patterns may have different impacts on college students' psychological, subjective and social well-being. In the research, it is necessary to pay attention to the different effects of different types and different ways of using social media on college students' happiness, and carry out detailed comparison and analysis.

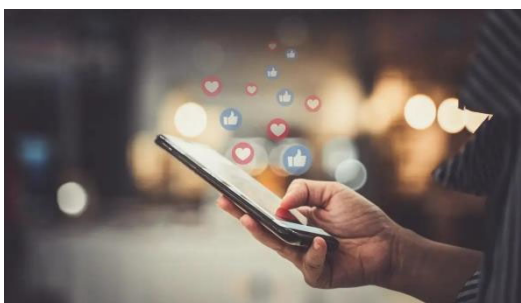


Figure 2 Differences in social media's impact on college students' well-being

8. Expected Result

The expected results of this study center around the effects of social media use on college students' psychological, subjective, and social well-being, and the mediating role of self-esteem. Through the investigation and score of college students' social media use behavior several important results may be obtained from the analysis.

8.1 Social media use has a significant impact on college students' psychological well-being. The research may find that college students can satisfy their social needs and sense of identity through interaction with others and information acquisition in the process of using social media, thus improving their psychological well-being. It may also be found that excessive use of social media may lead to information overload and virtualization of social relationships, which will have a negative impact on college students' psychological well-being.

8.2 Social media use has a significant impact on college students' subjective well-being. The study may find that social media use can improve the subjective well-being of college students because it

provides them with a platform to present themselves, gain approval from others and build social relationships. It may also be found that excessive use of social media may lead to a disconnect between college students and real life, making their evaluation of themselves overly dependent on the approval of others, thus reducing their subjective well-being.

8.3 The study may reveal the mediating role of self-esteem in the relationship between social media use and college students' psychological, subjective and social well-being. Specifically, the study may find that self-esteem plays a partial mediating role between social media use and college students' psychological well-being, that is, social media use can improve college students' psychological well-being by improving their self-esteem level. In addition, it may also be found that self-esteem plays a complete mediating role between social media use and college students' subjective well-being and social well-being, that is, social media use improves college students' psychological, subjective and social well-being by improving their self-esteem level.

The expected results of this study indicate that social media use has a significant impact on college students' psychological, subjective and social well-being, and self-esteem plays an important mediating role in this influence process. These expected results provide important empirical support for our in-depth understanding of the mechanism of social media use's impact on college students' happiness. In terms of guiding college students to use social media scientifically and rationally, the empirical results of this study also have important practical significance.

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