

Passive Social Media Use and Social Self-Efficacy: The Mediating Effect of Upward Social Comparison

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Abstract. In order to explore the partial impact of passive social media use on mental health, this research used a passive social media use scale, upward social comparison scale, and social self-efficacy scale for random sampling and received a total of 161 valid questionnaires. Moreover, the use of relevant tools to analyze the relationship between passive social media use and self-efficacy and psychological mechanisms are discussed. The results showed that the use of passive social media use will significantly positively affect the upward social comparison, and at the same time can not only directly negatively predict social self-efficacy, but also through the Upward social comparison of part of the intermediary effect.

Keywords: Passive social media use; Social comparison; Self-efficacy.

1. Introduction

With the popularity of mobile Internet terminals such as smartphones, teenagers have gradually become a large customer group who use social media to display, make friends, and obtain advice. As of December 2021, the number of Internet users in China has reached 1.032 billion. Statistics show that by December 2020, young people will account for 21.0% of the Internet users in China [1]. Therefore, young people are an important group of Internet users and should be concerned.

The era of the mobile Internet is an important environment that affects people's self-identity [2]. Researchers divide social media use into active and passive use according to individual social behaviors [3], and people are more inclined to engage in Passive Social Media Use. The vast majority of users use social media to search other people's home pages or other people's relevant information and materials most frequently. Therefore, the use of passive social media is far greater than active social media. Existing studies have confirmed that the use of passive social media will have a variety of psychological effects but also lead to an increase in individual depression levels and has a significant impact on individual subjective well-being [4-6]. Most of the current studies focus on the impact on mental health, ignoring the psychosocial variables related to social interaction. At present, few studies have explored whether the use of passive social media will affect social self-efficacy in reality, so this research has certain theoretical significance.

This research will further explore the relationship between the use of passive social media and social self-efficacy and try to explore the mediating role of upward social comparison. A clear understanding of the mechanism of media use on social efficacy is conducive to enlightening users and educators to use social media to intervene and improve social self-efficacy, which has certain practical significance.

1.1 Passive Social Media Use and Social Self-Efficacy

Depending on whether individuals can communicate directly with others, researchers divide the use of social media into passive use and active use. Passive socializing refers to passively browsing other people's information or observing their updated photos and updates. It is a kind of behavior to

browse friends' dynamic and network information but lacks communication with the outside world [3].

Social self-efficacy is a kind of subjective feeling, but not about individual skills themselves, and it reflects the confidence degree of individuals in their ability to adapt to and complete the task under different situations.

Interpersonal feedback has an impact on social self-efficacy because it is based on interpersonal behavior as well. [7]. Studies show that compared with active users of social media, passive users tend to feel lonely and have lower perceived social resources, while high levels of loneliness typically have a detrimental effect on social self-efficacy [8]. It should also be noted that the use of passive social media will prevent individuals from establishing good relationships with others and raise the level of social anxiety [9]. The theory of self-efficacy points out that an individual's own experience of success or failure and the experience of others will affect self-efficacy [10]. When an individual feels that others have more social resources and stronger social ability, it will also have a negative impact on social self-efficacy. Therefore, this research tries to hypothesize that passive social media use can negatively predict social self-efficacy (H1).

1.2 Mediating Role of Upward Social Comparison

In the absence of objective evaluation process, social comparison is the process whereby people assess their own conditions and those of others in order to gather relevant information [11]. Then researchers divide social comparison into parallel, downward, and upward social comparisons. [12]. Compared yourself to others who are better to you in many aspects is known as the upward social comparison. [12].

People are more inclined to modify themselves in a positive direction on the Internet, and the information displayed is most likely to be released after beautification. For passive users, due to the lack of interaction and communication, can only accept the high-quality content carefully screened by others. Therefore, when individuals browse too much information with "positive deviation," they will inevitably make upward social comparisons with it [13].

When individuals feel that others have more social resources and stronger social ability. Additionally, it will have a negative effect on social self-efficacy, people are more likely to experience unfavorable feelings like jealousy and melancholy. Low self-esteem is an important factor leading to mental health problems, thus increasing the negative effects on adolescents' mental health [14].

In general, this research tries to hypothesize that the use of passive social media can influence social self-efficacy through the mediating effect of upward social comparison (H2).

2. Method

2.1 Participants

A total of 187 participants were recruited with random sampling. Invalid questionnaires with regular responses were excluded, and 161 valid questionnaires were left, with an effective rate of 90.45%. Among them, 71 are males (44%), and 90 are girls (56%). Thirty-two were 12 to 18 years old (20%), Ninety-seven were 18 to 22 years old (60%), and thirteenth-two were over 22 years old (20%).

2.2 Measures

2.2.1 Passive social media use

Passive social media usage scale was compiled by Frison and Eggermont [14]. There are 4 items in total (for example, "View photos uploaded by your friends."). The passive social media usage was scored on a 5-point Likert scale with a range of 1 (never) to 5 (frequently), the more the participants' use of passive social media. In this research, the Croach's α is 0.78, and the reliability was acceptable.

2.2.2 Upward social comparison

The translated version of Gibbons and Buunk’s upward comparison subscale in the comparative propensity scale (INCOM) from from Bai was used[15,16]. There are 6 items in the scale (for example, “When I evaluate my current life or work-study situation, I often compare myself to people on social media who are doing better than me.”), The upward comparison was scored on a 5-point Likert scale from 1 (never) to 5 (frequently). In order to make the measurement focalization, limit the comparison in the original questionnaire to “in social media”. In this research, the α coefficient of the scale was 0.87, showing good reliability.

2.2.3 Social Self-efficacy Scale

Using Meng's revised Social Self-efficacy Scale[17]. The scale consists of 18 items (for example, “Inviting someone out again, although the first time it was rejected because he/she was too busy.”), which are scored from 1 (no confidence at all) to 5 (Have every confidence) on a 5-point Likert scale. The higher the score, the higher the social self-efficacy of the participants. In this research, the α coefficient of the scale was 0.93, with good reliability.

2.3 Data Processing

Using SPSS 27.0 for common method bias, descriptive statistics and correlation analysis, and Hayes’s PROCESS macro plugin for mediation effect testing.

3. Results

3.1 Common Method Bias

Measurement studies using subjective assessment tasks inevitably have the problem of common method bias. Clear and unified guidance was set in this questionnaire, and the maximum impact factor calculated by Harman single factor test technology was 39.80%, which was within the acceptable limits.

3.2 Descriptive and Correlative Statistics

According to the results, it is clear that passive social media use have a significant positive correlation with the comparison of uplink society; It is significantly and negatively correlated with social self-efficacy. At the same time, upward social comparison is significantly and negatively correlated with social self-efficacy (see Table 1). The above results can be used as a basis for the analysis of mediating effects.

Table 1. Descriptive statistics and pearson’s correlations for all variables

Variable	M	SD	1	2	3	4	5
1 Sex	1.56	0.50	--				
2 Age	2.00	0.63	-0.06	--			
3 Passive social media use	3.60	0.92	-0.04	0.09	--		
4 Upward social comparison	3.29	0.90	-0.16*	-0.01	0.44**	--	
5 Social self-efficacies	2.92	0.90	0.32**	-0.02	-0.27**	-0.34**	--

Notes: * $p < 0.05$, ** $p < 0.01$.

3.3 Mediating Effect of Upward Social Comparison

Use “causal stepwise regression” proposed by Baron and Kenny [18]. In Step 1, when looking only at the impact of passive social media use usage on social self-efficacy, it can be seen from the results that the passive social media use has a significant negative impact on the social self-efficacy ($B = -0.26$, $p < 0.001$). Then is Step 2, it is also clear that the passive social media use will have a significant positive impact on the upward social comparison ($B = 0.44$, $p < 0.001$). Finally, in Step 3, when passive social media use is used as an independent variable ($B = -0.16$, $p < 0.05$) and the upward

social comparison is mediated ($B = -0.22, p < 0.01$), it will have a significant negative impact on social self-efficacy. Thus, it is assumed that H1 and H2 are both true (see Table 2 and Fig. 1). The indirect effect (-0.09) of upward social comparison accounted for 36% of the total effect (-0.26) of passive social media use on social self-efficacy with a bootstrap 95% confidence interval without 0, which indicated that the relationship between passive social media use and social self-efficacy is partially mediated by upward social comparison (see Table 3).

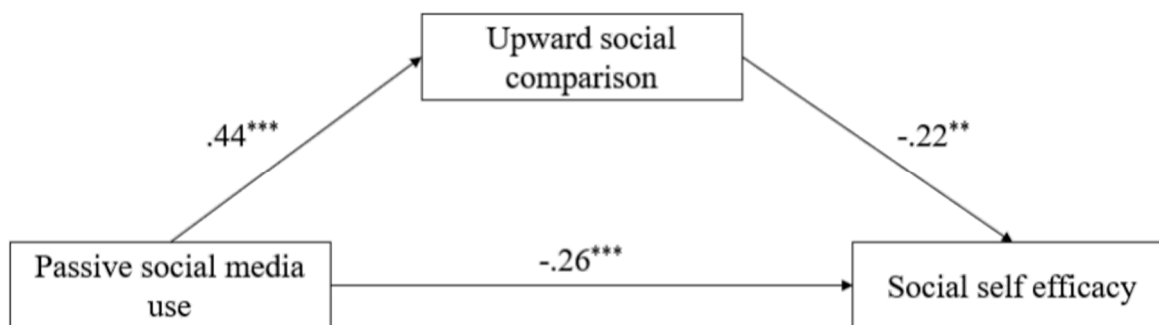


Fig. 1 Upward social comparison is used in passive social media use with a mediating model of social self-efficacy

Table 2. Unstandardized path estimates of the mediation model

Variables	Social self-efficacy			Upward social comparison			Social self-efficacy		
	B	SE	p	B	SE	p	B	SE	p
(constant)	2.90	0.39	< 0.001	2.34	0.38	< 0.001	3.40	0.43	< 0.001
Sex	0.57	0.13	< 0.001	-0.28	0.13	0.032	0.51	0.13	< 0.001
Age	0.03	0.10	0.779	-0.09	0.10	0.372	0.01	0.10	0.926
Passive social media use	-0.26	0.07	< 0.001	0.44	0.07	< 0.001	-0.16	0.08	0.037
Upward social comparison							-0.22	0.08	0.008
R ²		0.18			0.22			0.21	
F		11.16			14.87			10.53	
p		< 0.001			< 0.001			< 0.001	

Table 3. Indirect, direct, and Total effects of passive social media use on social self-efficacy

	Effect	BootSE	BootLLCI	BootULCI	Percent of effect
Indirect	-0.09	0.04	-0.17	-0.02	36%
Direct	-0.16	0.09	-0.34	0.00	64%
Total	-0.26	0.07	-0.40	-0.12	

4. Discussion

Under the background of the rapid development and popularization of social media, based on the passive use of social media will have significant side effects on social self-efficacy, the upward social comparison is used as a mediating variable, increased our understanding of how self-efficacy can be affected by passive use of social media. Also, it explains to some extent the reason why the time spent passively using social media is directly proportional to the negative self-efficacy.

4.1 Direct Effects of Passive Social Media Use on Social Self-Efficacy

The consequences show that passive use of social media can significantly negatively affect social self-efficacy, which is showing no difference with the research hypothesis(H1).This result is contradictory to the conclusion that there is a positive influence on social self-efficacy by using social website (Weibo), confirmed by previous studies [19]4 Specifically, the paper shows that only actively use the social media produced positive social self-efficacy, and those who use the media passively lack the interaction and communication on the media. Two different conclusions further support the

importance of good and healthy Web use. Specifically, if users often engage in passive browsing, not only will they not be able to meet their social needs from the Internet, but they will also have a negative impact on their mental health.

4.2 Mediating Role of Upward Social Comparison

People who prefer to passively browse information, they also have fewer perceived and actual access to social resources. They may lose themselves in the filtered and improved information of others, creating unintentional upward social comparisons. Healthy and positive communication, however, can help users to be clearer about the source of information and is more conducive to avoiding upward social comparisons.

The consequence show that upward social comparison has a partial mediating effect between passive social media use and social self-efficacy, which proof that the research hypothesis holds. Some examples of the effects of upward social comparison on social self-efficacy through some of the Bediating effects of online feedback [20], have also been presented in previous studies. This study further adds to the mediating role of upward social comparison in influencing social self-efficacy. The basis of previous studies is applied to this study, and this study adds that the passive use of social media plays a mediating role in social self-efficacy, and also emphasizes the importance of rational use of social media

On the basis of previous work, this research further supplemented the mediating effect of passive social media use on social self-efficacy and also emphasizes is placed on the appropriate and rational use of the media.

4.3 Limitations and Implications

In addition, this research still has the following limitations.

This research mainly focuses on the individual behavioral factors of Internet users without considering different personality traits and mental health conditions. Later research can further explore psychological factors related to mental health. About the samples, this research mainly spread outward from a personal, unavoidably existing homogeneity problem after can expand the sample size.

The results of this research have explored to some extent how passive social media use affects the social self-efficacy component of individual mental health. There is some inspiration for protecting the mental health of young people and promoting the more effective use of social media. According to the conclusion, the use of passive social media will directly affect social self-efficacy, and with the development of the network, there will inevitably be more passive use, then at this time may be able to reduce the comparison psychology while improving information retrieval and information discrimination ability, to minimize the upward social comparison, reduce the impact on mental health [21].

5. Conclusion

The research shows that both passive social media use and upward social comparison are significantly negatively correlated with social self-efficacy. Moreover, passive use of social media not only Significant negative predicts self-efficacy but also negatively predicts self-efficacy through the mediating effect of upward social comparison. This study looked into the possibility that social comparison on the upswing will serve as a mediator, causing passive use of social media to negatively predict social self-efficacy. To be specific, passive social media makes users unable to interact directly with other people and passively receive information. At the same time, upward social comparison easy to cause jealous feelings, and overload upward social comparison information easy to damage the self-confidence, leading to reduced social self-efficacy.

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