



# The Effect of Materialism on Social Media Addiction: A Chain Mediation Model

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**Abstract:** This study aimed to investigate the effect of materialism on social media addiction and the mediating role of perceived social support and self-esteem among college students. A total of 314 college students were recruited in this study. The results showed that (1) materialism, social media addiction, perceived social support and self-esteem were significantly correlated; (2) perceived social support and self-esteem respectively played a mediating role in the effect of materialism on social media addiction; and (3) perceived social support and self-esteem played a chain mediating role in the effect of materialism on social media addiction.

**Keywords:** Materialism; Social Media Addiction; perceived social support; self-esteem; Chain Mediation Model

## 1 Introduction

China Internet Network Information Center had reported that the number of social media user in China was 1.027 billion until June, 2022 [2]. Survey found that 74.76% of college students in China spend more than 3 hours on the Internet every day [6]. Social media can help people easily communicate with family and friends, bring individual entertainment, and alleviate the fear of loss. However, since the information presented by social media is affluent, it is easy to spend a lot of time and energy, resulting in uncontrollable issues, that is, the phenomenon of social media addiction. Social media addiction not only brings negative problems such as reducing sleep quality and causing cognitive failure [11], but also increases the risk of being abused, harassed by private messages, and leaked personal data, which will increase the psychological pressure of individuals and the risk of suicide [15].

Most of the previous studies focused on the influence of personality traits, motivation, and other aspects on social media addiction. As the emergency of individualistic values, the value tendency of "money worship" among young people has become increasingly apparent [17]. Materialism is a personal value that emphasizes the importance of the acquisition and possession of material wealth. Materialism has been found to positively predict social media addiction [8]. Materialists tend to be more prone to impulsive buying and luxury consumption. As the great convenience brought by social

media such as XiaoHongShu and Weibo, college students can easily integrate and share their own "high-priced goods" and "luxury experiences", and thus improve their sense of value and competitiveness.

Perceived social support refers to the existence of support resources when they are needed. It is an emotional experience, which emphasizes the expectation and evaluation of the social support an individual receives<sup>[4]</sup>. Researchers found that perceived social support was a good predictor of problematic internet behavior. Perceived social support can effectively slow down teenagers' deviant behavior on the Internet<sup>[9]</sup>.

Self-esteem is the emotional state of an individual evaluating their self-worth and ability<sup>[12]</sup>. Significant negative correlations between self-esteem and materialism were found in previous studies, and high materialism is often accompanied by low self-esteem. In addition, self-esteem is negatively correlated with some aggressive behaviors<sup>[5]</sup>. According to the cognitive-behavioral theory, self-esteem, as a non-adaptive cognition, is one of the influencing factors of social media addiction.

Many scholars have found that perceived social support, as an effective resource for individuals to buffer the negative impact of life conflicts, has a positive predictive effect on individual self-esteem<sup>[7]</sup>. Individuals with higher levels of perceived social support are more sensitive to the help provided by others, and can make more effective use of supportive resources when dealing with stressful events. Rosenberg believes that when an individual is accepted by the group and society, his self-esteem level will increase, otherwise, self-esteem level will decrease<sup>[14]</sup>.

In conclusion, this study proposed the following hypotheses: materialism can significantly and positively affect social media addiction (H1); and the perceived social support and self-esteem play a chain mediation role in the impact of materialism on addiction to social media addiction (H2).

## **2 Method**

### **2.1 Participants**

A total of 373 college students participated in this study. We obtained 314 valid questionnaires, with an effective rate of 84.18%. There were 138 males (43.95%) and 176 females (56.05%). The age ranges from 18 to 24 years old (mean=20.30, SD=7.22).

### **2.2 Measurements**

#### **2.2.1. Social media addiction.**

The Problematic Social Media Use Scale compiled by Koc and Gulyagc and adapted by Chunyu Chen was used to assess social media addiction among Chinese college students<sup>[1][3]</sup>. The scale consists of 8 items with a 5-point Likert scale as a score ("strongly disagree" to "strongly agree"). Higher scores indicated a higher frequency of social media addictive behaviors. The Cronbach's  $\alpha$  coefficient for this scale in the present study was 0.87.

### **2.2.2. Materialism.**

The Values-oriented Materialism scale developed by Richins and Dawson was used to assess materialism <sup>[13]</sup>. It consists of 18 items with three dimensions of center, happiness, and success. The Cronbach's  $\alpha$  coefficient for this scale in the present study was 0.85.

### **2.2.3. Perceived Social Support.**

The Perceived social support Scale developed by Zimet was used to assess the perceived social support <sup>[18]</sup>. It consists of 12 items with a 7-point Likert scale as (“strongly disagree” to “strongly agree”). The scale has three subscales of family support, friend support, and other support. The Cronbach's  $\alpha$  coefficient for this scale was 0.94 in the present sample.

### **2.2.4. Rosenberg Self-esteem Scale.**

Self-esteem was assessed by Rosenberg's Self-Esteem Scale <sup>[16]</sup>. It consists of 10 items on a 4-point scale (“strongly agree” to “strongly disagree”). The higher the score, the higher the self-esteem. The Cronbach's alpha was 0.80 in the present sample.

## **2.3 Data Analysis**

The data were integrated, screened, and standardized. SPSS 17.0 software was used for common method deviation test, correlation analysis, regression analysis. The bootstrap method was used to analyze the test of mediating and moderating effect.

# **3 Research results**

## **3.1 Common method deviation test**

All items of materialism, social media addiction, perceived social support and self-esteem were analyzed by exploratory factor analysis using Harman's single factor test. The results showed that there were 10 factors whose eigenvalues were greater than 1, and the variance explained by the first factor was 26.32%, which was less than the critical value of 40%, indicating no common method bias in this study.

## **3.2 Correlation analysis of materialism, social media addiction, perceived social support and self-esteem**

The bivariate correlation analysis showed that materialism, social media addiction, perceived social support and self-esteem are significantly correlated. The detailed results were shown in Table 1.

**Table 1.** Correlation Analysis among Variables

Variables	Materialism	Perceived social support	Self-respect	Social media addiction
Materialism	1			
Perceived social support	-0.12*	1		
Self-respect	-0.11*	0.34**	1	
Social media addiction	0.19**	-0.27**	-0.11*	1

Note: N = 314. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . This table is organized by the investigators of this study.

### 3.3 Analysis of the Mediating Effect of Perceived Social Support and Self-esteem

In order to verify the mediating effect of perceived social support and self-esteem between materialism and social media addiction, this study used bias-corrected percentile nonparametric bootstrap procedure.

Materialism had a significant positive impact on social media addiction ( $\beta = 0.25$ ,  $p < 0.01$ ) and materialism had a significant negative impact on perceived social support ( $\beta = -0.14$ ,  $p < 0.01$ ). Perceived social support had a significant negative effect on social media addiction ( $\beta = -0.33$ ,  $p < 0.01$ ). The indirect effect of materialism via perceived social support on social media addiction was  $-0.14$  ( $se = 0.05$ ,  $p < 0.001$ , 95% CI =  $[-0.10, -0.01]$ ).

Materialism had a significant negative impact on self-esteem ( $\beta = -0.14$ ,  $p < 0.01$ ), and self-esteem has a significant negative impact on social media addiction ( $\beta = -0.30$ ,  $p < 0.01$ ). Materialism has a significant indirect effect on social media addiction through the mediation of self-esteem ( $\beta = -0.14$ ,  $se = 0.05$ ,  $p < 0.001$ , 95% CI =  $[-0.08, -0.02]$ ).

The 95% confidence interval of the path (materialism  $\rightarrow$  perceived social support  $\rightarrow$  self-esteem  $\rightarrow$  social media addiction) indicating that the chain mediation effect is significant. The perceived social support has a significant positive impact on self-esteem ( $\beta = 0.31$ ,  $p < 0.01$ ). Materialism has a significant indirect effect on social media addiction through the chain mediation of perceived social support and self-esteem, and the mediation effect value is 0.01, accounting for 3.80% of the total effect (0.36).

The path coefficient values in the model are shown in Figure 1.

**Table 2.** Bootstrap test of mediation effect

	Indirect effect	Effect value	Boot stand-ard value	Lower Boot CI limit	Boot CI upper limit
Total indirect effect	26.19%	0.08	0.03	-0.14	-0.03
Materialism $\rightarrow$ Perceived social support $\rightarrow$ Social media addiction	13.50%	0.05	0.02	-0.10	-0.01

Materialism → self-esteem → social media addiction	13.50%	0.05	0.02	-0.08	-0.02
Materialism → perceived social support → self-esteem → social media addiction	3.80%	0.01	0.01	0.02	0.03
Total direct effect	73.81%	0.27	0.05	0.16	0.37

Note: This table is organized by the investigators of this study.

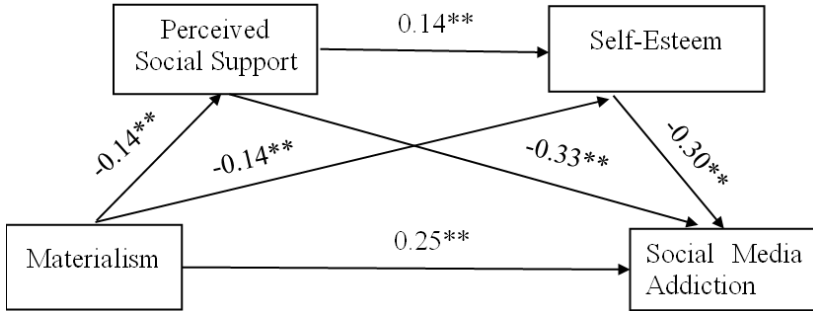


Fig. 1. The Chain Mediation Model (Note: This figure is drawn by investigators of this study.)

#### 4 Discussion

The major focus of the study was to investigate the effect of materialism on social media addiction, and to explore the mediation role of perceived social support and self-esteem. This study found that materialism could positively predict social media addiction, which was similar to previous studies [8], while perceived social support and self-esteem had a significant negative predictive effect on social media addiction [5][7]. This could be explained as materialists need to affirm their value by showing off their high-priced goods and luxurious experiences and to arouse the jealousy of others. Social medias, on the other hand, have the function of storing and sharing, which meets the needs of materialists and thus makes them more obsessed in using social medias. Family and friends can provide effective support when college students face obstacles. It may alleviate the addiction of social medias. Individuals with low self-esteem hold a negative evaluation of their interpersonal relationships, and they would be less likely to communicate with others face to face. They may feel comfortable and a sense of belonging when using social media.

Materialism not only directly affect social media addiction, but also affect social addiction through the mediation of perceived social support, which is consists with previous studies [10]. Materialists put most of their energy into the pursuit of wealth, they invest less energy in interpersonal relationships. In addition, they have conflicts with friends and relatives around them for material wealth, leading to the decline or breakdown of relationships. When individuals cannot meet their interpersonal needs, they will be more eager use social media. College students just left their parents' discipline, and they may become more dependent on social media.

We found that materialism affect social addiction through the mediation of self-esteem, which was also consistent with previous studies [5]. Because of the excessive attention and pursuit of wealth, high materialists hope to improve their social status and recognition of others, which leads to the weakening of their internal goals, and ultimately makes their sense of lower self-esteem. In addition, college students do not have a stable source of income, the deficit of wealth would lead to the decline of self-esteem. Therefore, college student may be addicted to social media.

The chain mediation role of perceived social support and self-esteem could be explained as materialists have negative attitudes towards perceived social support, which lead to a decline in their evaluation of themselves. They may feel that the only thing that can accompany them is wealth, which leads to a lower level of self-esteem, and then eventually leading to addiction to getting online through social media to satisfy themselves.

While the Internet brings convenient and benefits, college students who lack self-control would indulge in it. College students are in a critical period of life. They need to establish a stable self-evaluation system and psychological resources. This study implicates why college students were addicted to social media.

## 5 Conclusion

This study showed that materialism had a significant positive predictive effect on social media addiction. Perceived social support and self-esteem played a mediating role for the effect of materialism on social media addiction; and perceived social support and self-esteem also play a chain mediation role for the effect of materialism on social media addiction. This study may help us understand the social media use among Chinese college students, and help educators to develop educational strategies to reduce social media addiction among Chinese college students. Further studies may explore the relations by using qualitative methods and may incorporate more variables.

## References

1. Chen, C., Lian, S., & Sun, X. (2018). The relationship between social media addiction and adolescent depression: The mediating role of cognitive load and core self-evaluation. *Psychological Development and Education*, 34(2), 9.
2. CNNIC. (2022). *The 50th Statistical Report on China's Internet Development*. <http://www.cnnic.net.cn/NMediaFile/2022/0916/MAIN1663313008837KW1782STQL.pdf>
3. Groshek, J., & Koc-Michalska, K. (2017). Helping populism win? Social media use, filter bubbles, and support for populist presidential candidates in the 2016 US election campaign. *Information, Communication & Society*. <https://www.tandfonline.com/doi/abs/10.1080/1369118X.2017.1329334>
4. Gülaçtı, F. (2010). The effect of perceived social support on subjective well-being. *Procedia - Social and Behavioral Sciences*, 2(2), 3844–3849. <https://doi.org/10.1016/j.sbspro.2010.03.602>
5. Gupta, N., & Singh, R. A. (2019). Role of Materialism in Influencing Self-esteem. *SIS Journal of Projective Psychology & Mental Health*, 26(1), 51–55.

6. iiMedia Research. (2021). *2021 Chinese College Students' online entertainment behavior Report*. [https://report.iimedia.cn/repo13-0/34426.html?acPlatCode=IIMReport&acFrom=recomBar\\_1061&iimediaId=81551](https://report.iimedia.cn/repo13-0/34426.html?acPlatCode=IIMReport&acFrom=recomBar_1061&iimediaId=81551)
7. Ikiz, F. E., & Bakar, F. S. (2010). Perceived social support and self-esteem in adolescence. *Procedia - Social and Behavioral Sciences*, *5*, 2338–2342. <https://doi.org/10.1016/j.sbspro.2010.07.460>
8. Islam, T., Wei, J., Sheikh, Z., Hameed, Z., & Azam, R. I. (2017). Determinants of compulsive buying behavior among young adults: The mediating role of materialism. *Journal of Adolescence*, *61*, 117–130. <https://doi.org/10.1016/j.adolescence.2017.10.004>
9. Konan, N., Durmuş, E., Bakır, A., & Türkoğlu, D. (2018). The Relationship between Smartphone Addiction and Perceived Social Support of University Students'. *International Online Journal of Educational Sciences*, *10*. <https://doi.org/10.15345/iojes.2018.05.016>
10. Kong, F., Gong, X., Sajjad, S., Yang, K., & Zhao, J. (2019). How Is Emotional Intelligence Linked to Life Satisfaction? The Mediating Role of Social Support, Positive Affect and Negative Affect. *Journal of Happiness Studies*, *20*(8), 2733–2745. <https://doi.org/10.1007/s10902-018-00069-4>
11. Marino, C., Musetti, A., Vieno, A., Manari, T., & Franceschini, C. (2022). Is psychological distress the key factor in the association between problematic social networking sites and poor sleep quality? *Addictive Behaviors*, *133*, 107380. <https://doi.org/10.1016/j.addbeh.2022.107380>
12. Orth, U., & Robins, R. W. (2014). The Development of Self-Esteem. *Current Directions in Psychological Science*, *23*(5), 381–387. <https://doi.org/10.1177/0963721414547414>
13. Richins, M. L., & Dawson, S. (1992). A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation. *Journal of Consumer Research*, *19*(3), 303–316. <https://doi.org/10.1086/209304>
14. Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global Self-Esteem and Specific Self-Esteem: Different Concepts, Different Outcomes. *American Sociological Review*, *60*(1), 141–156. JSTOR. <https://doi.org/10.2307/2096350>
15. Sampasa-Kanyinga, H., & Hamilton, H. A. (2015). Social networking sites and mental health problems in adolescents: The mediating role of cyberbullying victimization. *European Psychiatry*, *30*(8), 1021–1027. <https://doi.org/10.1016/j.eurpsy.2015.09.011>
16. Wu, C.-H. (2008). An Examination of the Wording Effect in the Rosenberg Self-Esteem Scale Among Culturally Chinese People. *The Journal of Social Psychology*, *148*(5), 535–552. <https://doi.org/10.3200/SOCP.148.5.535-552>
17. Yongxin, H., Qian, D., & Wangying, Z. (2021). “Money worship” makes you more addicted? The influence of social media addiction. *Chinese Journal of Clinical Psychology*, *29*(4), 5.
18. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, *52*(1), 30–41. [https://doi.org/10.1207/s15327752jpa5201\\_2](https://doi.org/10.1207/s15327752jpa5201_2)

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