



The Mediating Effect of Self-control Between College Students' Social Exclusion and Fear of Missing Out

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Abstract. Objective: To examine the effects of college students' social exclusion on fear of missing out and the mediating role of self-control between college students' social exclusion and fear of missing out. Methods: A total of 407 university students (53.8% male, 46.2% female; $M_{age} = 20.04$, $SD_{age} = 1.56$) were administered with the Social Exclusion Questionnaire, the Fear of Missing Out Scale and the Self-Control Scale (SCS). Results: (1) College students' social exclusion had a significant positive correlation with fear of missing out and a significant negative correlation with self-control. Self-control could negatively predict fear of missing out significantly; (2) Self-control mediated the relationship between college students' social exclusion and fear of missing out. Conclusion: College students' social exclusion positively predicted the level of fear of missing out, and self-control mediated the relationship between social exclusion and fear of missing out.

Keywords: social exclusion, fear of missing out, self-control

1 Introduction

In recent years, it has become a common phenomenon for university students to experience social exclusion, such as the inability to establish or maintain normal interpersonal relationships on campus, not being recognised in the student community, and not being able to obtain equal rights. Social exclusion stems from the phenomenon of being ignored or rejected by other individuals or groups^{[1][2]}. It is the process that individuals are marginalised by the group to which they belong^{[3][4][5]}, as well as the phenomenon by which individuals' needs for belonging and relationships are not met^[6]. When people feel excluded, they may deliberately interact with others in order to restore a sense of belonging^[7], such as regaining group membership^[8], imitating others^[9], or consuming products that symbolise their reference group^[10]. Numerous studies have shown that college socialization is crucial to both emotional well-being and academic success throughout life, and that college students rely heavily on peer groups for psychological support^{[11][12]}. Therefore, this paper focuses on the consequences of the social exclusion of groups of college students.

There is a close and complex relationship between social exclusion and negative emotional experiences. Baumeister and Tice^[13] found that social exclusion triggers

strong negative emotions, with anxiety being the primary response^{[14][15][16]}. When Lai et al.^[17] and Oberst et al.^[18] examined the relationship between fear of missing out and a sense of belonging, they demonstrated that participants in a social exclusion condition could activate the left temporoparietal junction more, thus they suggested that the lack of human connection could lead to fear of missing out. When people were socially excluded, they might purposefully engage with others as a means of restoring their senses of belonging^[7] and the fear of missing out depends precisely on the individual's identification with the group and desire for greater inclusion^[19]. As a result, people threatened by social exclusion are more likely to experience fear of missing out. Fear of Missing Out (FoMO) refers to a kind of anxiety about missing out on some important information or new happenings about oneself or others, accompanied by anxiety, loss, worry, discomfort, and other negative emotions of complex emotional experience^[20], which usually occurs when a person realizes unattended experiences without the conscious intention of others and can be divided into two phases, pre-missing out and post-missing out. It is manifested in expecting to learn from other people's experiences, participating frequently in group activities, paying constant attention to external news and so on^[21].

The discontinuous flow of information can arouse feelings of social exclusion or drifting apart for individuals and may become a precursor to fear of missing out ^[22]. Research has shown that misplaced anxiety has an impact on an individual's level of separation anxiety (Clayton et al., 2015) ^[23], social isolation, and desire to disengage from society^[24]. Salem^[25] and Zhang et al.^[26] have theorized a number of research directions relating fear of missing out to concerns about social exclusion. For instance, fear of missing out being linked to fears arising from self-threats, public desire to avoid exclusion, fear of missing out being linked to feelings of lack of desired experiences (i.e., social exclusion), or a strong desire to be connected to something that others are doing to maintain a constant connection. However, no psychologist has specifically studied this so far. Based on these theoretical and empirical foundations, we propose hypothesis 1: The social exclusion experienced by college students triggers fear of missing out.

On the one hand, DeWall et al.'s^[27] study found that social exclusion reduces levels of self-control. Self-control is the process that individuals change an innate or habitual way of behaving, thinking, or paying attention as a result of suppressing or overcoming his or her own desires, needs. As well as, it is the process by which one way of behaving, thinking, or paying attention replaces or overcomes the other^{[28][27]}.

According to the self-control energy depletion theory, long-term social exclusion, whether in the real world or on the Internet, depletes an individual's psychological energy^[2] and cognitive resources, causing the individual to lose the will to self-control, leading to impaired self-control and further affecting the individual's psychosocial adjustment^[29].

Self-control, on the other hand, is an expression of an individual's ability to allocate cognitive resources. Individuals with high self-control are better able to allocate their cognitive resources. When faced with the phenomenon of fear of missing out, they can rationally arrange their cognitive resources, which can effectively alleviate the interpersonal panic caused by fear of missing out and buffer the negative effect of

low extraversion on interpersonal adjustment^[30]; on the contrary, individuals with low self-control are unable to allocate their cognitive resources appropriately in the face of interpersonal crises, and even experience cognitive failure. The phenomenon of interpersonal failure refers to subtle and relatively common failures in the content of an individual's memory, attention span and behaviour in everyday life^[31]. Furthermore, fear of missing out is associated with lower levels of self-control, according to Chotitayasunondh and Douglas's^[32] study. Servidio et al.'s^[33] study found that an individual's level of self-control negatively predicts fear of missing out. According to the above theories and findings, the present study suggests that self-control may be a mediating role affecting the relationship between social exclusion and fear of missing out, we propose hypothesis 2: Self-control mediates the relationship between social exclusion and fear of missing out.

2 Methods

2.1 Participants

The web-based assessment method was used and the questionnaires were distributed through the Questionnaire Star platform, with a total sample size of 415 participants with voluntariness. After deleting questionnaires with a duration of less than 120 seconds and incorrect attention checks, 407 valid observations (188 female, 219 male; $M_{\text{age}} = 20.04$, $SD_{\text{age}} = 1.56$) were obtained.

2.2 Measures

Social Exclusion. We used the Social Exclusion Questionnaire for College Students developed by Wu et al.^[34]. The scale consists of 19 items divided into two dimensions, direct and indirect exclusion. Responses were made on a 5-point Likert scale (1 = *never*, 5 = *always*), with higher scores representing higher levels of social exclusion. The Cronbach's α for this questionnaire in this study was 0.968, 0.942 for the direct exclusion dimension and 0.937 for the indirect exclusion dimension.

Fear of Missing Out. We used the scale developed by Song et al.^[35] to measure fear of missing out in the mobile social media environment, with 16 items, including 4 dimensions of the psychological motivation, the cognitive motivation, behavioural performance and emotional attachment. A 5-point scale was used (1 = not at all, 5 = completely), and higher participant scores represent higher levels of perceived fear of missing out. The Cronbach's α coefficient for this scale in this study was 0.97.

Self-control. We used the Self-Control Scale developed by Tangney^[36] and revised by Tan^[37]. The scale consists of five dimensions (impulse control, concentration on work, healthy habits, abstinence from recreation and resisting temptation) and 19 questions. It is scored on a five-point Likert scale (1 = not at all, 5 = completely). After reverse scoring, higher scores indicate greater self-control on the part of the individual. This scale has been shown to have good applicability to our adolescent population^{[38][39]}. The Cronbach's α coefficient for this questionnaire in this study was

0.811.

3 Results

Table 1. Descriptive statistics and correlation coefficients among variables

variables	<i>M ± SD (N = 407)</i>	1	2	3
1. social exclusion	2.54 ± 0.94	--		
2. fear of missing out	2.41 ± 0.92	0.51**	--	
3. self-control	2.71 ± 0.57	-0.48**	-0.53**	--

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Descriptive statistics and correlation coefficients of the variables are shown in Table 1. Based on the research hypotheses, a mediation model was developed as shown in Figure 1. Analyses were performed using the SPSS PROCESS Macro^[40](Model 4), with bias-corrected non-parametric percentage bootstrap tests, 5000 sample replications, mediation effect tests and estimation of 95% confidence intervals for the model. The standardized path coefficients of the model are shown in Figure 1. Social exclusion negatively predicts self-control, $\beta = -0.29$, 95% CI [-0.3413, -0.2376], and positively predicts fear of missing out, $\beta = 0.32$, 95% CI [0.2286, 0.4038]. Self-control is a negative predictor of fear of missing out, $\beta = -0.60$, 95% CI [-0.7491, -0.4594]. The total effect of social exclusion to fear of missing out was significant, $\beta = 0.49$, 95% CI [0.4081, 0.5741]. Self-control mediated significant effects between social exclusion and fear of missing out among university students, $\beta = 0.17$, 95% CI [0.1241, 0.2289]. After controlling for self-control, the direct effect of social exclusion on fear of missing out was still significant, $\beta = 0.32$, 95% CI [0.2286, 0.4038].

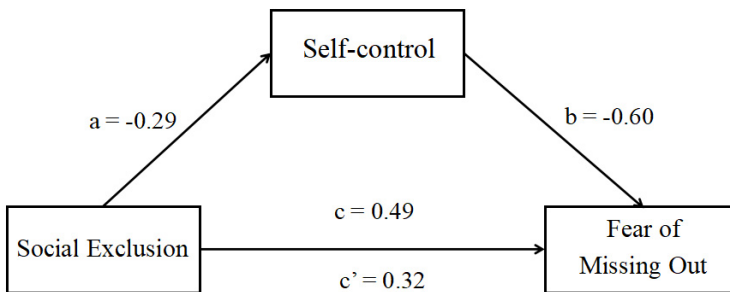


Fig. 1. Mediating effects of self-control between social exclusion and fear of missing out

4 General Discussion

This study explored the relationship between social exclusion and fear of missing out, and its mechanism. The results of the study provided a better test of the hypothesis that students' social exclusion positively predicts fear of missing out, and the mediation role of self-control.

The study showed that social exclusion of university students can positively predict the fear of missing out. That is to say, university students who suffer from social exclusion are more likely to have the fear of missing out. From an empirical perspective, it confirms the relationship between social exclusion and fear of missing out, and validates the theoretical aspects of Salem's^[25] and Zhang et al.'s^[26] theories. When college students are excluded from their respective groups, they inevitably develop various negative emotions, such as anxiety and fear, and therefore engage in a range of behaviours hoping to reconnect with others and restore a sense of group belonging.

Mediation analyses indicated that self-control mediated the relationship between social exclusion and fear of missing out. To put it another way, social exclusion may indirectly affect fear of missing out via negatively predicting self-control. Previous research has shown that social exclusion reduces self-control since of depleting an individual's mental energy and cognitive resources^{[2][27]}, and that individuals' self-control negatively predicted fear of missing out^[33], with lower levels of self-control leading to fear of missing out^[32]. In general, university students who suffer from social exclusion have reduced psychological energy and cognitive resources, which in turn affects the individuals' level of self-control and increases the likelihood of suffering from the fear of missing out.

5 Limitations and Future Directions

First of all, most of the existing studies have studied the three variables of social exclusion, fear of missing out and self-control based on the scale, and the same is true for the present study. In the future, these variables could be studied through behavioural methods, such as observing the words and actions of the participants, it may effectively increase the credibility of the experiment and make the results more convincing.

There are still some limitations in this study. Although this study is the first to establish a relationship between the variables of social exclusion and fear of missing out in a group of university students, it focuses only on revealing the association between the two, identifying a simple psychological mechanism (i.e., using self-control as a mediating variable). However, there may be other mechanisms at work, such as individual differences among university students. It has been shown that social exclusion leads to self-depreciation and threat to the self-worth of the excluded, which in turn leads to lower self-esteem of the individual^[41], which means self-esteem has a significant negative correlation with social exclusion^[15]. On the other hand, Buglass et al.^[42] found that low self-esteem increased the probability of fear of missing out, suggesting that individuals with low self-esteem may be more sensitive to interpersonal information and eager to know what others think of them, leading to the emergence of fear of missing out^[21]. Therefore, future research could attempt to introduce variables such as self-esteem to further investigate the specific relationship between social exclusion and fear of missing out. In addition, specific mechanisms such as how and when the relationship between social exclusion and fear of missing out emerges should also be investigated.

In addition, although numerous studies have confirmed the correlation between social exclusion and fear of missing out, current theoretical and experimental studies are not yet sufficient and future studies could attempt to better control and manipulate them experimentally to reveal the causal relationship between the two. Finally, most research on social exclusion and fear of missing out has focused on the excluded person, and few researchers have looked at bystanders. Future studies could attempt to observe whether bystanders produce behaviours that motivate the excluded person to develop or reduce their fear of missing out during the process of social exclusion.

6 Conclusion

The conclusions of this study are as follows: firstly, college students' social exclusion had a significant positive correlation with fear of missing out and a significant negative correlation with self-control. Secondly, self-control could negatively predict fear of missing out significantly. Thirdly, Self-control mediated the relationship between college students' social exclusion and fear of missing out.

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