

The Impact of Social Exclusion on Self-Control among College Students: The Mediational Role of Rejection Sensitivity

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Abstract: This study explores the influence of social exclusion on self-control and the mediating role of rejection sensitivity between the two. Utilizing the College Students' Social Exclusion Scale, Self-Control Scale, and Rejection Sensitivity Scale, questionnaires were distributed to college students in universities. A total of 594 questionnaires were collected, and after removing invalid ones, 575 valid questionnaires were obtained, with an effective rate of 96.80%. Statistical analysis was conducted using SPSS 26.0. Results indicate significant gender differences in social exclusion, with female college students reporting more social exclusion. There were also significant differences in social exclusion based on the students' rural or urban origins, with rural students reporting a higher perception of social exclusion. Social exclusion, rejection sensitivity, and self-control were all significantly correlated. However, social exclusion did not significantly predict self-control directly but could influence self-control through rejection sensitivity, indicating that rejection sensitivity fully mediates the relationship between social exclusion and self-control. The study suggests that social exclusion is not entirely negative and can have certain positive effects, indirectly improving individual self-control through rejection sensitivity. However, it is not recommended to use this factor as an intervention method to enhance self-control.

Keywords: Social Exclusion; Self-Control; Rejection Sensitivity; Mediational Effect

1. Introduction

In the process of growing up, children become increasingly interested in their peers, and relationships outside the family and making new friends become more important. However, during the establishment of these relationships, situations such as isolation and rejection, known as social exclusion, inevitably occur. Existing research has shown that individuals who experience rejection not only feel lonely but also develop negative emotions or behaviors due to the detachment from social relationships.

According to the Cognitive Overload Theory, social exclusion can cause individuals to experience painful psychological feelings, which occupy limited cognitive resources, leading to a decrease in self-control abilities for other cognitive processes ^[1]. Studies have found that when individuals experience higher levels of social exclusion, their self-control abilities decrease. Additionally, a lack of self-control abilities may lead to the emergence of more problematic behaviors ^[2].

Due to the diverse manifestations of social exclusion, its impact on individuals may vary, indicating the existence of certain mediating variables in the relationship between social exclusion and self-control. One specific manifestation of social exclusion is rejection, thus this study considers the mediating role of rejection sensitivity between the two.

2. Literature Review

Numerous scholars have conducted research on the concept of social exclusion. After collecting and organizing relevant studies, scholars such as Du Jianzheng have defined social exclusion as the social phenomenon where individuals are rejected or excluded by others or groups, leading to difficulties in fulfilling their relational and belonging needs. Isolation and rejection are examples of its manifestations

[3]. Individuals experiencing social exclusion are prone to feelings of shame, depression [4], and emotional numbness. From a behavioral perspective, social exclusion may lead to prosocial behavior, antisocial behavior, or avoidance behavior. Overall, most research results suggest that social exclusion has negative effects.

Self-control is a prerequisite for individuals to live and adapt to society, and it is also an indispensable component of our psychological structure. It represents a compromise between two aspects: instinctual impulses and higher-order self. For example, refusing to eat fried foods to maintain a healthy physique. Scholars such as Baumeister et al. state that self-control is the ability of individuals to actively regulate their own thoughts and behaviors [5], aiming to achieve long-term goals by controlling desires and impulses [6].

Rejection sensitivity was initially proposed by the renowned scholar Horney in the field of psychopathology [7]. From a social perspective, rejection is a common phenomenon, and everyone experiences rejection situations. However, different individuals react differently to rejection, indicating variations in their perception and reaction levels. Downey and Feldman delved into the concept of rejection sensitivity, viewing it as a personality dynamic tendency. They defined rejection sensitivity as the anxiety individuals feel in response to rejection behaviors [8]. Some cognitive neuroscientists believe that rejection sensitivity enables the rapid integration of social exclusion information in the brain, allowing individuals to perceive rejection and respond defensively.

Based on this, social exclusion, due to its diverse manifestations, may affect individuals through rejection sensitivity. For instance, when an individual is rejected by someone or a group, varying degrees of negative emotions or behaviors arise due to the individual's rejection sensitivity. To mitigate the harm caused by these negative emotions or behaviors, self-control is triggered (e.g., attempting to attack others but restraining oneself to avoid the consequences of such actions). Therefore, this study proposes the following hypotheses:

H1: Social exclusion can enhance self-control.

H2: Rejection sensitivity mediates the influence of social exclusion on self-control.

3. Methods

3.1. Subjects

Questionnaires were randomly distributed to undergraduate students from multiple universities in South China, East China, West China, and North China. A total of 594 questionnaires were collected, of which 575 were valid, resulting in an effective rate of approximately 96.80%. Among the respondents, there were 312 males (54.26%) and 263 females (45.74%); 283 respondents (49.22%) were from urban areas, while 292 (50.78%) were from rural areas; 226 respondents (39.30%) were only children, while 349 (60.70%) were not.

3.2. Research Instruments

3.2.1. General Demographic Questionnaire

This study collected demographic information from participants, including gender, age, place of origin, and whether they were only children.

3.2.2. College Students' Social Exclusion Scale

Wu Huijun et al. designed a questionnaire for students' social exclusion [9], which targeted college students as the main research subjects. This questionnaire categorized social exclusion behaviors into four types: neglect, rejection, isolation, and denial, and summarized them into two dimensions. The questionnaire consisted of 19 questions, scored using a 5-point Likert scale, where 1 indicated "never" and 5 indicated "always". The dimensions were direct exclusion (questions 1-8) and indirect exclusion (questions 9-15). In this study, Cronbach's α coefficient was 0.900, indicating good reliability.

3.2.3. Self-Control Scale

This study employed the Multidimensional Scale of Self-Control developed by Tangney, Baumeister, and Boone [10], which has both a short version and a full version. Both versions use a 5-point Likert scale for scoring. The full version, consisting of 38 items, includes five dimensions:

self-discipline, health habits, and non-impulsive behavior, with 11, 7, and 10 questions respectively. In this study, Cronbach's α coefficient was 0.89, indicating good reliability.

3.2.4. Rejection Sensitivity Scale

This study used the Rejection Sensitivity Scale (TERS) translated by Li Xia^[11], which consists of 18 items scored using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". The internal consistency coefficient (α) for this questionnaire in this study was 0.71, indicating good reliability.

3.3. Data Statistics

Data analysis for this study was conducted using SPSS version 26.0 and included descriptive statistics, independent samples t-tests, correlation analysis, and hierarchical regression analysis.

4. Results

4.1. Common Method Bias Test

Since all variables in this study were measured using self-report questionnaires, there may be a common method bias affecting the results. The Harman's single-factor test was employed. The analysis results indicate that there are 9 factors with eigenvalues greater than 1, and the first factor's variance explained is 20.769%, which is much lower than the critical value of 40%. Therefore, this study does not have a severe common method bias issue.

Table 1: Gender Differences in Main Variables and Their Dimensions (N=575)

| Variable | Male(M±SD, n=263) | Female (M±SD, n=312) | t | p |
|-----------------------|-------------------|----------------------|--------|-------|
| Social Exclusion | 24.65±10.08 | 27.22±12.51 | 2.725 | 0.007 |
| Self-Control | 55.59±10.54 | 54.80±12.08 | -0.834 | 0.404 |
| Rejection Sensitivity | 54.72±9.30 | 55.88±9.27 | -1.494 | 0.136 |

This study utilized independent samples t-tests to investigate whether there were gender differences in social exclusion, self-control, and rejection sensitivity. The results revealed significant gender differences in social exclusion ($t=2.725$, $p<0.01$), with female participants reporting higher levels of social exclusion. However, no significant gender differences were found in self-control and rejection sensitivity ($t=-0.834$, $p>0.05$; $t=-1.494$, $p>0.05$).

Table 2: Differences in Social Exclusion, Self-Control, and Rejection Sensitivity based on Being an Only Child (N=575)

| Variable | Only Child (M±SD, n=226) | Non-Only Child (M±SD, n=349) | t | p |
|-----------------------|--------------------------|------------------------------|--------|-------|
| Social Exclusion | 25.32±10.45 | 26.51±12.16 | -1.246 | 0.213 |
| Self-Control | 55.11±12.20 | 55.19±10.87 | -0.079 | 0.937 |
| Rejection Sensitivity | 55.51±9.76 | 55.08±8.99 | 0.530 | 0.596 |

As shown in Table 2, there were no significant differences in social exclusion based on whether the participants were only children ($t=-1.246$, $p>0.05$). Similarly, there were no significant differences in self-control and rejection sensitivity based on being an only child ($t=-0.079$, $p>0.05$; $t=0.530$, $p>0.05$).

Table 3: Differences in Social Exclusion, Self-Control, and Rejection Sensitivity, and Their Dimensions Based on Place of Origin (N=575)

| Variable | Urban(M±SD, n=283) | Rural (M±SD, n=292) | t | p |
|-----------------------|--------------------|---------------------|--------|-------|
| Social Exclusion | 24.93±10.59 | 27.13±12.29 | -2.303 | 0.022 |
| Self-Control | 54.68±11.90 | 55.62±10.89 | -0.992 | 0.322 |
| Rejection Sensitivity | 55.24±10.01 | 55.26±8.56 | -0.030 | 0.976 |

As indicated in Table 3, significant differences were observed in social exclusion based on the participants' place of origin ($t=-2.303$, $p<0.05$), with rural participants reporting higher levels of social exclusion. However, there were no significant differences in self-control ($t=-0.992$, $p>0.05$) and rejection sensitivity ($t=-0.030$, $p>0.05$) based on place of origin.

Table 4: Correlation Analysis of Main Variables (N=575)

| | | | |
|--------------------------------|----------|----------|---|
| | 1 | 2 | 3 |
| 1.Social Exclusion Total score | 1 | | |
| 2.Self-Control Total score | 0.139** | 1 | |
| 3.Rejection Sensitivity | 0.148*** | 0.486*** | 1 |

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; “p” is the probability, reflecting the probability of an event.

According to the correlation analysis results (refer to Table 5), significant pairwise correlations were found among social exclusion, self-control, and rejection sensitivity ($p < 0.01$).

Table 5: Mediation Effect and Model Fit of Social Exclusion and Self-Control (N=575)

| Variable | Variable | R^2 | F | β | t | p |
|-----------------------|-----------------------|-------|-----------|---------|--------|-------|
| Self-Control | Social Exclusion | 0.241 | 90.839*** | 0.068 | 1.845 | 0.066 |
| | Rejection Sensitivity | | | 0.476 | 12.931 | 0.000 |
| Rejection Sensitivity | Social Exclusion | 0.022 | 12.856*** | 0.120 | 3.586 | 0.000 |

In this study, mediation analysis was conducted using the PROCESS plugin in SPSS, specifically Model 4, employing one of the most practical methods for testing mediation effects: the Bootstrap method (Wen Zhonglin, 2005). This method is widely used due to its higher accuracy and precision.

In the experiment, social exclusion was considered as the independent variable (X), self-control as the dependent variable (Y), and rejection sensitivity as the mediator variable (M). A mediation model was established to examine the mediating effect of rejection sensitivity on the relationship between social exclusion and self-control.

As shown in Table 5, the direct effect of social exclusion on self-control was not significant ($t=1.845$, $p>0.05$), indicating that social exclusion does not directly impact self-control. However, social exclusion had a significant effect on rejection sensitivity ($t=3.586$, $p<0.001$), and rejection sensitivity had a significant effect on self-control ($t=12.931$, $p<0.001$). Thus, social exclusion can indirectly influence self-control through rejection sensitivity. The mediation model diagram is illustrated in Figure 1.

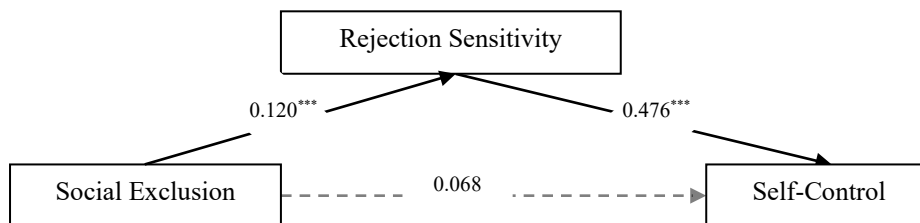


Figure 1: Depicts the mediation effect of rejection sensitivity between social exclusion and self-control

Table 6: Mediation Effect and Significance Test of Social Exclusion on Self-Control (N=575)

| Pathway | Standardized Coefficient | Effect Size | 95% Confidence Interval | |
|-----------------|--------------------------|-------------|-------------------------|-------|
| | | | LLCI | ULCI |
| Direct Effect | 0.067 | 0.036 | -0.004 | 0.139 |
| Indirect Effect | 0.070 | 0.023 | 0.027 | 0.118 |
| Total Effect | 0.137 | 0.041 | 0.057 | 0.217 |

According to Table 6, we can observe that the direct effect of X on Y is 0.067, with a confidence interval of [-0.004, 0.139]. Since this interval includes 0, the direct effect is not significant. Additionally, X has a significant indirect effect on Y, with an effect value of 0.070 and a confidence interval of [0.027, 0.118]. The standardized coefficient for the total effect is 0.137, with a confidence interval of [0.057, 0.217]. Both the indirect and total effect values fall within the confidence intervals, and since the confidence interval does not include 0, it indicates that the indirect effect is significant. Therefore, the model is valid, demonstrating a significant full mediating effect of rejection sensitivity between social exclusion and self-control.

5. Discussion

This study explores the influence of social exclusion on self-control among university students, as

well as the mediating role of rejection sensitivity between the two factors. Analyzing the results, we find significant gender differences in social exclusion among university students, with female participants reporting higher scores, indicating that females may perceive social exclusion more intensely. However, no significant gender differences were observed in self-control and rejection sensitivity. Additionally, family structure, whether being an only child or not, showed no significant impact on social exclusion, self-control, or rejection sensitivity among participants. Notably, significant disparities in social exclusion based on participants' hometowns were observed, with rural students reporting higher levels of social exclusion. This aligns with speculations from various studies, suggesting that rural individuals, who may be relatively disadvantaged in terms of basic education, social integration, and urban connectivity, might experience increased social exclusion or heightened sensitivity to it. However, no significant differences were found in self-control and rejection sensitivity based on participants' hometowns.

Pearson correlation analysis indicates a significant positive correlation between social exclusion and self-control, contrary to the findings of most studies [12]. Nonetheless, it's worth noting that social exclusion often reduces prosocial behaviors, yet it can also induce profound feelings of distress. From an evolutionary perspective, alleviating this distress is best achieved through prosocial behaviors, thereby minimizing further exclusion. Consequently, it can be inferred that individuals may exhibit greater self-control to fulfill the need for social acceptance and belongingness after experiencing social exclusion. Furthermore, the correlation analysis also reveals significant positive correlations between social exclusion and rejection sensitivity, as well as between rejection sensitivity and self-control, consistent with previous research findings [13][14].

Using Model 4 in the PROCESS macro, we examined the mediating role of rejection sensitivity between social exclusion and self-control. The results demonstrate that the direct effect of social exclusion on self-control is not significant, while the indirect effect is significant, indicating a significant mediating effect of rejection sensitivity. Hence, rejection sensitivity serves as a full mediator between social exclusion and self-control.

Although enhancing self-control is desirable, ensuring both physical and mental well-being while doing so is even more crucial. Social exclusion and rejection sensitivity often lead to negative emotions and behaviors, such as loneliness and aggression, while positive outcomes of self-control are relatively limited. While recognizing the potential positive aspects of social exclusion and rejection sensitivity, caution is warranted in interpreting these results for intervention purposes. Utilizing other factors to enhance self-control may be more effective and beneficial.

University students constitute one of the most critical demographics requiring attention in society. University life entails a transition for late adolescents, selected through various stages of examination, into a novel environment where they must adapt to new communal living and interpersonal relationships after leaving their families. Research indicates that individuals commonly experience social anxiety and interpersonal sensitivity when entering a new environment. While phenomena like social exclusion are challenging to control, this study provides a fresh perspective on understanding social exclusion. Adversities and challenges can, to some extent, promote the growth and development of university students and are not entirely negative. However, this study does not recommend using means such as increasing rejection sensitivity or promoting social exclusion to intervene in self-control levels. Intervention strategies should prioritize holistic physical and mental health considerations.

6. Conclusion

Gender and hometown significantly influence the perception of social exclusion. Social exclusion is significantly positively correlated with self-control and rejection sensitivity. However, social exclusion cannot directly predict self-control; instead, it affects self-control through rejection sensitivity. While social exclusion has some positive effects on university students, it's crucial to be cautious of its potential negative emotional and behavioral impacts and adopt a dialectical approach to adversity.

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