The Impact of School Belonging to Subjective Social Status of Middle School Students: Mediating Effect Base on Mental Health

Tsai Feng Kao1, a, Yi Zhan Du* 1, b, Lian Yang1, c, Yu Cheng Shen2, d, Yin Gzi Wang 3, e

1 School of Teacher Education, Shaoguan University, Shaoguan, China; 2 School of International Education, Guangzhou College of Technology and Business, Guangdong, China; 3 School of Education Science, Minnan Normal University, Zhangzhou, China

Abstract. The purpose of this study is to explore the relationship between school belonging and subjective social status of middle school students, and whether mental health plays an intermediary role between them. Taking 484 middle school students as subjects, they completed the school belonging scale, subjective social status scale and general health questionnaire. The results show that: (1) There is a significant positive correlation between school belonging, mental health and subjective social status of middle school students. (2) Middle school students' sense of school belonging can positively predict their subjective social status, and can also indirectly influence their subjective social status through mental health, which plays an intermediary role between school belonging and subjective social status.

1. Introduction

Adolescence is a period when significant social changes take place, and adolescents' social comparison and social identity are highly developed. During this period, the influence of parents and economic status decreases, while individual autonomy increases, and studies on adolescent mental health based on subjective social status are more convincing than those based on socioeconomic status. Adolescents' perceptions of their family resources and social status are often referred to as their subjective social status. Adolescents' subjective social status can be further divided into social subjective social status and school subjective social status. Social subjective social status refers to teenagers' cognition of their family's position in Chinese society, while school subjective social status refers to teenagers' cognition of their position in the school hierarchy. Studies have shown that subjective social status is uniquely related to adolescents' mental health and development, and adolescents with low subjective social status show more psychological distress and developmental problems.[1] Therefore, it is extremely important to include subjective social status in any research related to adolescent mental health.

2. Literature Review

Subjective social status was first proposed by foreign scholars. However, in China, it is also an important factor affecting the development of adolescents. At present, there are more researches on subjective social status abroad, but relatively few researches in China. Most of them take adults as subjects, and adolescents' subjective social status at school has not received much attention. Psychologist Ingrid has clearly stated that the so-called mental health is an ongoing state of mind in which an individual is sensitive and energetic to his surroundings, thus maximizing his potential. In this case, the individual is very positive and not limited to his psychological immunity.[2] Thus, valuable recent findings demonstrate that subjective social status is a better predictor of various mental health related aspects than traditional objective indicators of socioeconomic status. For example, in 29 countries, subjective socioeconomic status was found to be associated with mental health, even after controlling for objective socioeconomic status.[3]

The term sense of belonging, developed by Hurtado and Carter, is defined as a person's perception of her or his place in the group or college community. Since then, the term has been more fully described as a student's perceived level of social support on campus, also known as a sense of connection, or the feeling of being valued by others.[4] Many studies at home and abroad have shown that school belonging plays an important role in students' mental health level. Wang Ligao's research on the relationship between school belonging and mental health of higher vocational freshmen shows that there is a significant correlation between school belonging and the overall level of mental health, that is, the stronger the sense of school belonging, the higher the level of mental health.[5]

The autonomy of middle school students is highly developed. Most studies at home and abroad focus on the consequences of subjective social status, while there are few studies on the anthems of subjective social status.
Therefore, this study aimed to explore whether there was a pairwise correlation between school belonging and mental health and subjective social status. To investigate whether mental health plays an intermediary role in the relationship between school belonging and subjective social status. On this basis, the concept of family education and school education of health science should be advocated to improve the subjective social status of middle school students.

3. Methods

3.1 Research objects

In this study, middle and high school students were selected as the subjects. A total of 525 questionnaires were sent out, 510 were recovered, and 484 were valid, with effective recovery of 92.19%. Among them, there were 273 male students (56.40%) and 211 female students (43.60%); 106 (21.90%) in junior high school, 134 (27.7%) in junior high school, 147 (30.37%) in senior high school and 97 (20.04%) in senior high school.

3.2 Research Tools

3.2.1 Adolescent subjective Social Status Scale

This scale is a combination of the subjective social and economic status scale for adolescents revised by Hu Muli et al. and the subjective social status scale for adolescents compiled by Cheng Gang and Chen Yanhong et al. It mainly includes 9 aspects, including family subjective social status, school subjective social status, popularity status, social practice ability, peer heterosexual communication, academic performance, talent level, family conditions and image temperament. The items are scored on a 10-point scale from 1 to 10, with higher scores representing higher subjective social status of the adolescent. The Cronbach α coefficient of this scale was 0.88.[6]

3.2.2 General Health Questionnaire

The general health questionnaire includes 12 questions in total, including 6 positive questions and 6 negative questions respectively. Likert level 4 scoring method is adopted, with the highest score being 12 and the lowest score being 4. The higher the total score, the higher the level of mental health. The Cronbach α coefficient of the scale was 0.71.[7]

3.2.3 School Belonging Scale

The Chinese version of the school belonging scale revised by domestic scholar Pan Developed et al., which consists of 18 items, adopts Likert scale form and uses six options of "fully agree", "agree", "basically agree", "basically disagree", "disagree" and "completely disagree" to indicate the degree of agreement of the respondents to the questions. There are reverse scoring questions (3, 6, 9, 12, 16) and positive scoring questions. The higher the score, the stronger the sense of belonging. The Cronbach α coefficient of this scale is 0.75.[8]

3.3 Statistical Analysis

SPSS19.0 statistical software package was used in this study for data processing and analysis, including independent sample T test, one-way analysis of variance, correlation analysis, regression analysis, etc.

4 Results

4.1 Correlation analysis of school belonging, mental health and subjective social status

Pearson product difference correlation analysis was conducted on school belonging, mental health and subjective social status, and the specific results were shown in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>School belonging</th>
<th>Mental health</th>
<th>Subjective social status</th>
</tr>
</thead>
<tbody>
<tr>
<td>school belonging</td>
<td>-</td>
<td>0.54**</td>
<td></td>
</tr>
<tr>
<td>mental health</td>
<td></td>
<td></td>
<td>0.36**</td>
</tr>
<tr>
<td>subjective social status</td>
<td></td>
<td>0.37**</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen from Table 1, there is a significant positive correlation between subjective social status and mental health of middle school students (r=0.360, p < 0.01), a significant positive correlation between subjective social status and school belonging (r=0.371, p < 0.01), and a significant positive correlation between mental health and school belonging (r=0.547, p < 0.01). It can be concluded that the three variables of school belonging, mental health and subjective social status of middle school students are significantly correlated.

4.2 Regression analysis of school belonging, mental health and subjective social status

In order to further explore the relationship among the three, multiple stepwise regression method is adopted to analyze the influence of demographic variables such as gender and grade, and the results are shown in Table 2.
As can be seen from Table 2, the regression coefficient of school belonging to subjective social status is 0.33, \( p < 0.001 \), reaching a significant level, indicating that school belonging can significantly predict subjective social status, and the independent variable of school belonging can explain 13.8% variation of the dependent variable of subjective social status. The regression coefficient of school belonging on mental health is 0.23, \( p < 0.001 \), reaching the significance level, that is, school belonging has a significant predictive effect on mental health, and it can be seen that the independent variable of school belonging can explain 29.9% of the variance of the dependent variable of mental health. The regression coefficient of mental health on subjective social status is 0.22, \( p < 0.001 \), reaching the significance level, indicating that mental health can significantly predict subjective social status, and mental health can explain 8.4% of the variation of subjective social status. Both school belonging and mental health could positively predict the subjective social status, and they could explain 17.3% of the variation.

### 4.3 The mediating effect between school belonging, mental health and subjective social status

According to the four conditions that must be met for the mediating effect to be significant: (1) \( X \) can significantly predict \( Y \); (2) \( X \) can significantly predict \( M \); (3) \( M \) can significantly predict \( Y \); (4) After controlling \( M \), the prediction coefficient of \( X \) to \( Y \) was weakened or not significant. Where, \( X \) is the prediction variable, \( Y \) is the result variable and \( M \) is the intermediary variable.

#### Table 3 Total effects, direct effects and mediating effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Boot SE</th>
<th>Boot LLCI</th>
<th>Boot ULCI</th>
<th>Effect ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediating effect</td>
<td>0.06</td>
<td>0.11</td>
<td>0.01</td>
<td>0.14</td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.22</td>
<td>0.01</td>
<td>0.12</td>
<td>0.32</td>
</tr>
<tr>
<td>Total effect</td>
<td>0.33</td>
<td>0.04</td>
<td>0.20</td>
<td>0.37</td>
</tr>
</tbody>
</table>

According to the results of regression analysis in Table 3, (1) school belonging can significantly predict subjective social status; (2) school belonging can significantly predict mental health; (3) Mental health significantly predicted subjective social status; (4) When the subjective social status was taken as the dependent variable and the belonging to school and mental health as the independent variable were both entered into the regression equation, the t-test was extremely significant \( (p < 0.001) \), indicating that when the mental health was included in the regression equation, the explanatory amount of the belonging to school on the subjective social status decreased from 0.33 to 0.22. The regression effect is weakened but still significant, so comprehensive mental health plays a partial mediating role between the school belonging and subjective social status. According to the above results, a model with mental health as the mediating variable is proposed, as shown in Figure 1.

![Figure 1 The mediating effect of mental health between school belonging and subjective social status](image)

### 5. Discussion

In this study, the overall level of school belonging of middle school students is relatively good, which is consistent with most current research results. The reason may be that contemporary education pays more and more attention to the dominant position of students, the construction of schools can better meet the various needs of students, and the increasing care of teachers for students, which are conducive to the promotion of teacher-student relationship and the enhancement of
students' sense of school belonging. This is inconsistent with the results of Xu's research, which showed that the overall level of school belonging was not optimistic, because Xu's subjects were selected from first-tier cities, where students are subjected to more intensive learning competitiveness and are faced with more inefficient and high-intensity learning tasks. There is a significant difference in the level of school belonging. The reason may be that the newly enrolled students are still relatively unfamiliar with the campus environment compared with the senior students, so the connection with the campus is relatively limited. School belonging has an important impact on the mental health of middle school students. This study shows that enhancing students' sense of belonging to school can enhance their mental health level and further enhance their subjective social status. However, how to enhance the sense of belonging to school remains to be studied, which should also be paid attention to.

In this study, the subjective social status of middle school students is mainly measured, and the overall subjective social status of middle school students is at a medium level, which is consistent with the results of Huang's research. The main reason is that, influenced by the traditional Chinese virtue of "modesty" since ancient times, relatively few people think that they are superior, and most people adopt the idea of the mean when evaluating themselves. Therefore, high scores are less; It may also be the problem of the sampling area, students in different areas have different psychological characteristics, and the two areas sampled are not first-tier cities.

In this study, there is a significant positive correlation between the school belonging of middle school students and their mental health, which is consistent with the research results of Du. High school belonging of middle school students can improve students' learning motivation and closeness to teachers and classmates, thus improving students' academic performance and interpersonal relationship. Experience the value of their own life, generate more positive emotions, so that the higher the level of mental health, it indicates that effectively improve the students' sense of belonging to school, their mental health level will be correspondingly improved. Therefore, the school should focus on the students with a low sense of belonging and the new students, pay attention to strengthen the construction of campus culture, enhance students' sense of belonging, so as to improve their mental health level.

According to the correlation analysis between mental health and subjective social status, it is found that the mental health level of middle school students also plays a significant positive role in predicting the subjective social status, which is consistent with the Cundiff research results. The higher the mental health level of middle school students, the more positive emotions can be generated in the process of learning, communicating with teachers and classmates, and club activities. Therefore, it is conducive to the progress of academic performance, the development of interpersonal relationship and the successful completion of tasks, so as to improve the level of self-esteem of students and enhance their subjective social status. Therefore, schools should put students' mental health education in an important position. First of all, there should be a complete mental health education infrastructure, further improve and perfect the psychological counseling service system, unify the influence of various education, and promote the comprehensive development of students.

According to the research results, school belonging also has a significant positive correlation with subjective social status, which is consistent with the research results of He et al. A strong school belonging can make students more willing to participate in campus life, learn and deal with the relationship between teachers and classmates with greater enthusiasm, and thus get more positive feedback and enhance their sense of self-worth. And improve their subjective social status.

6. Conclusion

Firstly, school belonging, mental health and subjective social status are positively correlated with each other. Secondly, the school belonging of middle school students can positively predict the subjective social status, and can also indirectly affect the subjective social status through mental health. Thirdly, mental health has an intermediary effect between the school belonging and subjective social status.

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References

6. Goodman E, Adler N E, Kawachi I, Frazier A L, Huang B, Colditz G A. Adolescents' perceptions of social status: Development and evaluation of a new...


