

# A Study on the Mental Health Problems of Middle School Students in Plateau and Its Countermeasures——Taking a Middle School in Qinghai Province as an Example

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**Abstract:** Participants in this study were 569 middle school students from the plateau middle school. In China, there is a mental health scale for middle school students (MSSMHS). MSSMHS was created by Professor Wang Jisheng of the Chinese Academy of Sciences' Institute and was used to assess the mental health of middle school pupils on Qinghai's plateau. The findings revealed that 25.31 percent of kids at this school had psychological issues, providing a foundation for additional research into the mental health of middle school children in the plateau.

**Keywords:** Plateau; Middle School Students; Mental Health

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## 1. Introduction

The World Health Organization defines health as “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity”.<sup>[1]</sup>A higher psychological quality is an essential component of a person's total qualification. Elementary school is the cornerstone of the national educational system, while secondary school is the keystone. At the same time, middle school students are going through a vital moment in their formation of self-identity.Reduced mental health status in adolescents may lead to unfavorable hygiene behaviors and an increased risk of infections.<sup>[2]</sup>In recent years,the incidence of psychological behavior problems and the prevalence of mental disorders among children and adolescents in China have gradually increased, becoming an important public health issue. About 10% to 30% of middle school students have different degrees of psychological problems.<sup>[3]</sup>As a result, it is vital to focus on the mental health challenges that middle school adolescents encounter.

The study found that due to the influence of regional and sampling factors, few researchers have taken the plateau middle school students as their research subjects, therefore, this project uses a questionnaire assessment method to analyze the mental health problems of middle school students in a middle school in Qinghai Province.Then the study proposes corresponding interventions to point out new directions to help highland school students solve their mental health problems.

## 2. Method

### 2.1 Study population

Our team selected the middle school students in a middle school in Qinghai as participants,and The 569 valid surveys were returned, yielding a valid recycle percentage of 75.9%. There were 290 men and 279 women. There were 173 seventh grade students with an average of (12.56±0.53) years old; 199 eighth grade students with an average of (13.57±0.59) years old; and 197 ninth grade students with an average of (14.38±0.55) years old.

## 2.2 Mental Health Scale for Middle School Students in China (MSSMHS)

This study was carried out using the questionnaire approach. MSSMHS was compiled by Professor Wang Jisheng of the Institute of Chinese Academy of Sciences, and used to measure the level of the mental health of middle school students in plateau in Qinghai. The scale has 60 items and is divided into 10 subscales, each of which consists of 6 items, (1 for "none", 2 for "mild", 3 for "moderate", 4 for "partial" severe", and 5 for "severe") using a 5-point Likert scale. The mental health status of middle school students was assessed according to the total scores of each subscale and scale: a score of 2 to 2.99 indicates mild mental health problems, 3 to 3.99 points indicate moderate mental health problems, 4 to 4.99 points indicate more severe mental health problems. And a score of 5 indicates very severe mental health problems. The higher the total scale and subscale scores, the bigger the participants' mental health difficulties. The internal consistency coefficients of the subscales and the overall in this study ranged from 0.729 to 0.977.

## 2.3 Research procedures

Firstly, the experimenters introduced the questionnaires, and explained the purpose of administration, precautions, etc. Then the experimenters distributed and tested subjects anonymously and collected the questionnaires after 15 minutes.

## 2.4 Statistical analysis

For data analysis, the spss21.0 program was employed.

## 3. Result

### 3.1 Middle school students' mental health score.

Table 1 shows the mental health status of middle school children as well as the detection rate. The research results showed that 25.31% of students in this school had psychological problems, of which 19.86% had mild mental health problems, 4.22% had moderate psychological problems, and 1.23% had partial severe psychological problems.

Table 1

The mental health score of Qinghai-Tibetan plateau's middle school students.

Total scores	Middle school students	Detection rate(%)	Mental health status
≤120	143	25.13	none
121-180	113	19.86	mild
181-240	24	4.22	moderate
241-300	7	1.23	partial severe

### 3.2 Middle school students' sub-test items score

There was a certain variation among the factors (Table 2), with the highest scores for the academy factor (2.13), indicating the middle school students were under the highest pressure to study.

Table 2

The mental health score of sub-test items of Qinghai-Tibetan plateau's middle school students.

Number of people	Sub-test items	Options	Average score	Reference Standards
569	Forcing factor	3, 10, 12, 22, 23, 48	1.94	<2
569	Bigoted factor	11, 20, 24, 26, 47, 49	1.64	<2
569	Hostile factor	19, 21, 25, 50, 52, 58	1.70	<2
569	Tension and sensitivity of interpersonal relationships factor	4, 17, 18, 45, 51, 59	1.72	<2
569	Depression factor	5, 13, 14, 16, 44, 57	1.86	<2
569	Anxiety factor	6, 15, 34, 43, 46, 56	1.92	<2
569	Academy Factor	31, 33, 36, 38, 40, 55	2.13	2-2.99
569	Maladaptive factor	1, 8, 9, 29, 39, 41	1.53	<2
569	Emotional imbalance factor	2, 7, 27, 32, 35, 53	1.66	<2
569	Psychological imbalance factor	28, 30, 37, 42, 54, 60	1.71	<2

### 3.3 One-way ANOVA in different grades of sub-test items

According to Table 3, the variance of the three factors, including forcing factors, Tension and sensitivity of interpersonal relationships factors, and emotional imbalance factors, was chi-square ( $p > 0.05$ ). Then we continued to analyze them among three grades with one-way ANOVA. Table 4 showed the results. The results showed that there was a significant difference in tension and sensitivity of interpersonal relationships factor and emotional imbalance factor in grade 7, 8 and 9.

Table 3

Homogeneity Of Variance Test

Factor	<i>Sig.</i>
Forcing	0.135
Bigoted	0.007
Hostile	0.012
Tension and sensitivity of interpersonal relationships	0.055
Depression	0.007
Anxiety	0.017
Academic stress	0.029
Maladaptive	0.000
Emotional imbalance	0.087
Psychological imbalance	0.000

Table 4

One-way ANOVA

Program		<i>df</i>	<i>F</i>	<i>Sig.</i>
Forcing factor	Inter-group	2	0.732	0.482
	Intra-group	566		
	Total	568		
Tension and sensitivity of interpersonal relationships factors	Inter-group	2	4.238	0.015
	Intra-group	566		
	Total	568		
Emotional imbalance factor	Inter-group	2	6.291	0.002
	Intra-group	566		
	Total	568		

## 4. Discussion

Our group discovered that 25.31% of students had mental health problems, which indicated to some extent that a quarter of the middle school students in plateau may have different degrees of mental health problems, which also reminded us that adolescent mental health problems are a big problem and we should pay attention to the mental health of them.

The causes of middle school students' mental health are multifaceted, such as emotions, interpersonal relationships, academy stress and so on. Among them, academy stress is the prominent reason, which also reflects the current heavy academic load.

This study also includes flaws, such as an insufficient sample selection and a limited sample size, which should be investigated further.

## **5. Conclusion and suggestions**

### **5.1 Conclusion**

Not much research has been done on middle school students' mental health in plateau, thus this study provides an innovation point on middle school students in plateau. With the rapidly progress of society, there is a growing demand for quality personnel in society, and middle school students are under tremendous pressure to learn. In the process of our research in the middle school, we found that the young teachers attached great importance to the mental health of their students and we were very easy to communicate with them, while some older teachers would make it difficult to conduct the questionnaires.

### **5.2 Suggestions**

#### **5.2.1 Establish a harmonious and friendly social atmosphere**

The society should establish the concept of getting along well with others and encourage non-violent communication, which can make it easy to feel the warmth of the society and become happy for those with mental health, then the students may come out of the shadow of mental illness by themselves and avoid tragedies.

#### **5.2.2 Provide professional mental health teachers**

All educators ought to think highly of mental health of every student. School psychologists should implement school-wide mental health screenings to identify students who may be at increased risk of experiencing mental health challenges, such as girls and students who are victimized, and provide adequate resources to help students with mental health need.<sup>[4]</sup> Besides, parents should also show more concern for their children's mental health.

#### **5.2.3 Enhance students' psychological flexibility**

We operationalize psychological flexibility as the tendency to respond to situations in ways that facilitate valued goal pursuit, and we argue that psychological flexibility is most important in situations that are challenging and provoke distress.<sup>[5]</sup> Some students have poor resistance and are easy to despair. Psychological Flexibility as a Fundamental Aspect of Health Achieving psychological health is one of the foremost goals of human existence.<sup>[6]</sup> Thus, it's valuable to enhance students' psychological flexibility.

The promotion of child and adolescent mental health is a worldwide challenge<sup>[7]</sup>. The key to the development of child and adolescent mental health policy is the education of the population about the need for such services in order to improve the quality of life for individuals, families, and communities.<sup>[7]</sup>

## **6. Acknowledgement**

This research is part of Qinghai Normal University's undergraduate science and technology innovation initiative for 2021 (qhnuxskj2021072). The writers express gratitude to the professors and students who assisted them.

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**Project:** An undergraduate science and technology innovation project of Qinghai Normal University in 2021 (qhnuxskj2021072)