

# The Effects of Music Education on College Students' Mental Health

Siyuan Wang<sup>1, †</sup> Xiaoshuang Zhang<sup>2, †</sup> Chenyi Zhi<sup>3, \*, †</sup>

<sup>1</sup>College of Artificial Intelligence, Shandong University of Engineering and Vocational Technology, Jinan, Shandong 250200, China

<sup>2</sup>School of Music, Shijiazhuang College, Shijiazhuang 050000, China

<sup>3</sup>School of Teacher Education, Nanyang Institute of Technology, Nanyang 473004, China

\*Corresponding author. Email: 18403144@masu.edu.cn

†These authors contributed equally.

## ABSTRACT

This study aims to explore the effects of music education on mental health among college students. A total of 267 university students completed questionnaires, including the Mood Education Scale, Self-Rating Anxiety Scale, and Self-Rating Depression Scale. The results showed that the frequency of participation in music education activities significantly decreases depression, rather than anxiety. Therefore, increasing the frequency of music education activities could be a promising approach to improving the mental health problems of university students.

**Keywords:** Music education, Mental health, Pedagogy

## 1. INTRODUCTION

According to statistics, the proportion of psychological disorders among college students in Chinese ordinary colleges and universities reaches about 10%. College students face more pressure, which includes academic pressure, employment pressure, interpersonal pressure, and so on. Therefore, the Ministry of Education of the People's Republic of China has emphasized the importance of strengthening mental health education [1]. For students, managing their negative emotions (such as suppression and depression) plays an important role in mental health.

Studies have shown that music can relieve stress and release bad emotions [2]. Music can be used to express their unhappiness and release their stress using music that is upbeat, lively, and brighter in the mood. For example, before the exam, you can listen to soothing music, and in times of stress, you can listen to gorgeous and beautiful music [3]. In previous studies, the root effects of music were found to have multiple effects on college students' mental health [4]. For this aspect of music category preference, Dai Xin believes that there is a causal relationship between music preference or psychological state and depression and anxiety and that people who see things more pessimistically or have such diseases are more inclined to RAP or heavy metal genres of music. It

is possible to care for their mental health status and implement interventions based on musical preferences [5].

Then, in music teaching, the previous traditional music teaching mode possesses great sectionalism for the general colleges and universities in China. Compared to the previous years, the music education teaching in colleges and universities nowadays is more diversified [6]. First, music education is an arts education and it has a diversified aesthetic state. Music education is inseparable in all aspects [7]. The way of music education stimulates the enthusiasm of college students.

Therefore, during the process of music education, emotional education plays an important role in middle school music teaching, as well as the highest and most beautiful realm in the process of music education [8]. Music is a language of the heart, communication between the heart and the mind, which can help college students wash their minds and help them better understand the work and feel the message brought by the author of the work [9]. From the practice in foreign countries, music therapy itself has fully proved the alleviation and improvement of people's mental health. Music not only gives people the enjoyment of beauty but also affects people's body, mind and behavior through a variety of psychological and physiological functions [10]. Trait anxiety, including stress and anxiety, can affect mental health [11]. Music is capable of shaping all kinds of

unexpected imagery in the body, and it has been scientifically proven that it can stimulate the immune system of people’s bodies, speed up the recovery of health from disease, increase metabolism significantly, create a sense of calm and peace, and play a significant role in the prevention of physical illness [12]. Depression is a mood disorder with a high incidence and is characterized by persistent low mood, loss of interest, and loss of pleasure. Music therapy may help regulate mood and emotion [13]. Emotion seems to be an important regulator of long-term memory of musical imagery. Clearly, strong emotions are associated with musical experiences that contribute to memory formation and retrieval [14].

In general, music has the effect of relieving psychological stress and boredom, however, previous research has been more in the direction of musical diversity and focused on primary and secondary school students. In contrast, there are fewer music education approaches for college students, so this study focuses on what kind of music education approach is more appropriate for college students and what psychological effects music education can have.

The purpose of this paper is to investigate the effects of different music education styles and appreciation preferences on college students’ psychological health. Anxiety and depression were used as indicators of psychological health. Music majors were hypothesized would have lower levels of anxiety and depression than non-music majors. Different types of music education have different effects on students’ anxiety and depression levels. The higher frequency of participating in music activities the lower the level of depression and anxiety.

**2. METHOD**

**2.1. Participants**

In this study, a random sample of college students of different ages (on average, 18-22 years old) and different majors was used. A total of 267 questionnaires were completed by students, and the valid questionnaires were 267, with an efficiency rate of 100%. Among them, 71 were male students and 196 were female students.

**2.2. Measures**

**2.2.1 Self-rating Depression Scale (SDS)**

The SDS was developed by Zung in 1965 and was used to measure depression. The scale contains 20 items, divided into four levels of scoring, which is easy to use. The scale directly reflects the depressive feelings of the participant and is widely used in adults with depressive symptoms. A higher score indicates more severe depression. The internal consistency reliability in this study was 0.879.

**2.2.2 Self-Rating Anxiety Scale (SAS)**

The SAS scale was, developed by Zung in 1971 and was used to measure anxiety. It contains a total of 20 items on a four-point scale. A higher score indicates more severe anxiety. According to the present study, the internal consistency coefficient was 0.852.

**2.2.3 Music Education**

Self-created questions were used to examine the role of musical activities. The questions involved music majors, types of music activities, and frequency of music activities. For example, “whether or not they were music majors”, “participation in music education activities”, and “frequency of music education activities”.

**2.3 Data analysis**

Quantitative research was used in this study, by issuing questionnaires to college students for investigation and data analysis using SPSS software. This study mainly analyzes the correlation between depression and anxiety from three dimensions of music education.

**3. RESULT**

Table 1 presents the results of the analysis of variance, differences were not statistically significant at the test level of  $P < 0.05$ . SAS anxiety levels (SAS crude scores) did not differ between the frequency of concert attendance.

**3.1. The effect of the frequency of music education**

Table 1 The differences in anxiety between different frequencies of concert attendance

Group	M ± SD	F	P	
SAS	No	39.14±9.86	2.046	0.088
	Two to three times a year	37.29±8.75		
	Once a month	37.33±8.09		
	Once a week	34.91±8.11		
	Two to three times a week	43.17±14.35		

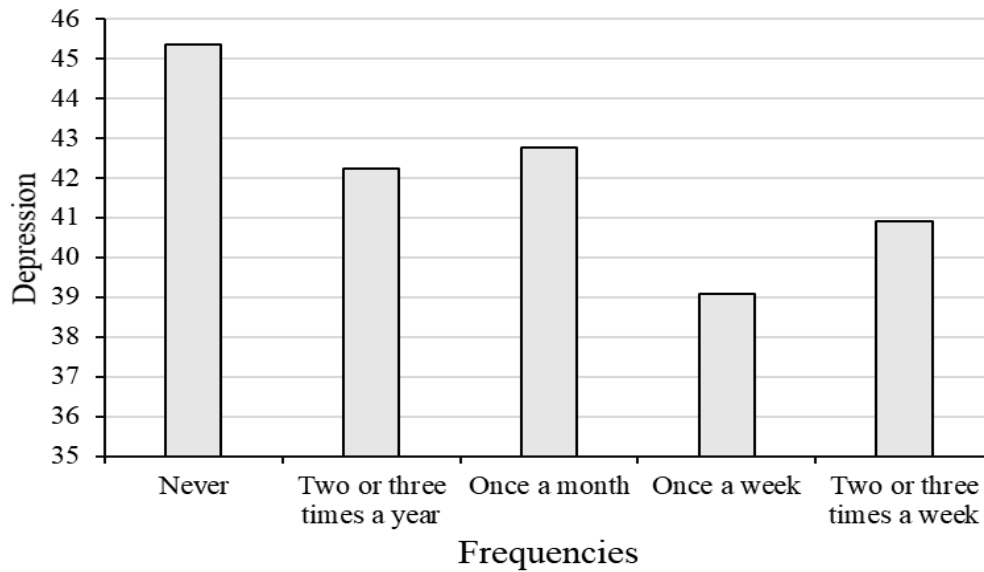


Figure 1 The differences in depression between different concert frequencies attended

Figure 1 presents the results of the analysis of variance, SDS anxiety levels (SDS crude scores) differed between concert attendance frequencies. Combining a two-by-two comparison of no vs. once a week and no vs. P-values of 0.024, 0.005, respectively. The differences were statistically significant at the test level of  $P < 0.05$ . The mean value shows that those who attend two to three concerts per year have lower depression scores than those who have not attended concerts. Those who attended once a week had lower depression scores than those who had not attended a concert.

#### 4. DISCUSSION

The results showed that there was no significant difference between being a music major and different music education methods on college students' depression and anxiety levels. This is consistent with the results of previous studies, the difference between the effect of music on college students' emotions and whether they were music majors was not significant [15].

A possible explanation for this non-significant result may be that the music major is not the main influence on mood. The fact that students, whether music majors or not, are likely to be exposed to other music education activities in college, such as music clubs, leads to insignificant differences between the two. Non-music majors may also prefer to listen to music.

A previous study showed that aesthetic appreciation of music as a pedagogical method can significantly increase the level of anxiety and depression in college students [16]. The effectiveness of interventions for negative emotional adjustment problems is significant. This is inconsistent with the results of the present study.

The aspect of music education displays results that are inconsistent with those of our predecessors. In a previous

study, Wu's results on the role of aesthetic appreciation of music on the mental health of college students concluded that: In terms of aesthetic appreciation, the selection of musical tunes is beneficial for the intervention of college students' emotional adjustment problems. Meanwhile, musical aesthetic activities have a long-lasting effect on the psychological problems and negative emotions of college students. Musical aesthetic activities can be considered an effective tool to be applied and promoted [16].

It is speculated that because there are four educational approaches in our questionnaire and Wu only focuses on the aspect of aesthetic appreciation of music, we did not target each approach and Wu is targeting one university. Rural, urban, science, and liberal arts have been studied in the first through third years of teacher education. Our study was only conducted on students around us who were studying music and non-music majors. Although the number of people reached 267, it did not specifically go to differentiation. It has some limitations.

In this study, there were no significant differences in the levels of depression and anxiety among the different music education approaches among college students, presumably because college students had a vague concept of the names of these music education activities and because the questionnaire did not reflect the curriculum of each activity in a targeted way.

In addition, mental health is influenced by many factors such as study, family, and employment. The combined effect on the level of mental health resulted in data that did not allow for relevant conclusions. The interference of other factors should be controlled when conducting further relevant studies.

The results showed that participation in music education activities had no significant effect on frequency

anxiety, but had a significant effect on depression. Specifically, college students who had not participated in music activities had higher SDS standard scores than those who participated two to three times a year and those who participated once a week. That is, college students who do not participate in music education activities have higher levels of depression (or are more likely to be depressed) compared to those who participate (or regularly participate) in music education activities. It is hypothesized that the mental health problems of college students can be improved by increasing the frequency of music education activities.

Although anxiety and depression often appear together, they are distinct. Anxiety refers to worry and fear of uncertain events, while depression refers more to low mood. Frequent participation in musical activities improved depression but not anxiety significantly. Because anxiety is caused more by the presence of certain specific places or directed by specific events, such as test anxiety, or interpersonal tension. At this point, it may be that solving the problem itself and actively coping is more conducive to relieving anxiety, while listening to music as a distraction does not solve the substantive problem and therefore has little effect. When people are depressed, music can play a role in cheering people up and relieving stress, and in previous studies, Zheng Hao said that through the appreciation and study of music, the upbeat rhythm of music can play a role in relieving depression and can make the unpleasant mood to vent, thus having the effect of open-mindedness, cheerfulness, and cheerfulness [17]. Music is a medium of communication that can make people feel less isolated. Immersing yourself in music can transform a negative mental state into a more positive one. Music is good for their health by bringing the spiritual, mental, and physical elements of their lives into balance [18].

The population of this study is only college students, the sample size is narrow and the sampling area is limited and not universal, so the data may have some bias. Second, we did not completely exclude other factors that may cause mental health problems, which may have affected the data, and the perspective of our study is not comprehensive, only focusing on the effects of depression, anxiety, and negative emotions, there are multiple perspectives to analyze, for example, happiness, excitement, and many perspectives are analyzed.

Music education as a discipline is more often seen in the form of classroom presentations by music majors during their college years, while students from other majors participate in very few forms of music education activities. The common music activities in ordinary colleges and universities are clubs, concerts, or campus singer competitions, which have certain limitations, and the forms of music activities for non-music majors still need to be improved. Music a common art form in life has a positive impact on the mental health of college students.

Previous work on music education has paid less attention to the psychological problems and negative emotions of healthy people, and there is room for further improvement in the mental health of college students.

## 5. CONCLUSION

Overall, this study found no significant differences between different majors and different music education methods in depression, anxiety levels, and frequency of participation in music education activities. Different majors and different music education methods did not affect anxiety levels but affected depression. The results of this study point to the importance of frequency of participation in musical activities, suggesting that people can go to more music-related activities to help reduce negative emotions and improve mental health.

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