



RESEARCH ARTICLE

The Development of Music Recreation Therapy for Students' Stress, using of Music Activity Learning Methods

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Education reform and social development drive university enrollment growth, causing mental health issues among students. Despite comprehensive development, many struggle with psychological construction, exacerbated by academic pressures. This study aims to test the stress alleviation effect of music recreation on college students in the Xinghai Conservatory of Music, especially in the post-COVID-19 era. The study project included the following inclusion criteria: (a) undergraduate students; (b) new freshmen aged 18–25 years; and (c) all subjects underwent testing using the Self-Rating Anxiety Scale (SRAS) and the Perceived Stress Scale-14 items (PSS-14) as a combined test. Exclusion criteria were: (a) suicidal thoughts or behaviors; (b) past or current diagnosed mental illness; and (c) currently receiving therapy or anti-anxiety-depression medication elsewhere. The study found significant differences in stress levels among first, second, and third grade students, with higher grades causing greater stress. Freshman grades had lower stress levels. College life is a time of growth and self-discovery, but it also brings stress due to academic pressures, financial responsibilities, and social pursuits. Coping strategies, such as music, can help alleviate stress and promote well-being. Music, singing, and instrumental music-making are effective tools for stress relief, engaging emotions, and promoting tranquility. Universal themes and diverse participation encourage inclusivity and empowerment. Music-making, involving motor skills, promotes calmness and inner peace. In conclusion, College students face academic, personal, and societal stressors, affecting their mental, emotional, and physical well-being. Music recreation can help alleviate stress by providing physiological and psychological benefits, promoting relaxation and well-being during the transition to college. Recommendation, Colleges, and universities should prioritize student well-being by providing comprehensive support systems to address stress. Music recreation can help reduce stress, lower cortisol levels, and mitigate anxiety and depression symptoms. It fosters community, coping skills, and a sense of belonging, making it an effective wellness initiative.

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INTRODUCTION

With the deepening of education reform and the need for social development, the number of domestic university enrollments has been increasing. The fierce competitive environment has led to college students' mental health problems becoming more and more of a social concern in recent years. School education advocates for the comprehensive development of students' moral, intellectual, physical, and aesthetic qualities. However, many students' mental health is still in the process of continuous improvement and lacks perfect psychological construction. This can easily lead to a variety of

psychological problems in the face of heavy academic and employment pressure, as well as living conditions.

The World Health Organization (WHO) declared coronavirus disease 2019 (COVID-19) a pandemic on 11 March 2020. As of 13 February 2022, COVID-19 has infected over 404.9 million people worldwide, resulting in 5.7 million reported deaths. Public health emergencies like COVID-19 have the potential to cause psychological and physical harm to the public, with long-lasting psychological effects. Relative to other social groups, college students are more gullible regarding the COVID-19 epidemic, experiencing uncertainty and sudden semester interruptions. Studies have reported higher anxiety and depression symptoms during the pandemic outbreak.

Studies on the mental health of college students in the post-COVID-19 era have mainly involved exploring the psychological status, such as the evaluation of anxiety, depression, PTSD symptoms, insomnia, stress, and fatigue level, as well as obtaining a picture of their coping styles, quality of life, social support, psychological resilience, etc. However, research has not sufficiently examined the impact of music recreation on mental health conditions such as stress, depression, and anxiety. Music is one important tool in traditional psychotherapy. Music therapy, based on psychotherapy's practical methods and theories, combines the unique physiological and psychological effects of music to enable patients to eliminate psychological barriers and restore physical and mental health through various specially designed musical behaviors. Music can be a powerful tool for recreation and stress relief. Research has shown that listening to music can have numerous positive effects on the body and mind, including reducing stress and anxiety, improving mood, and enhancing relaxation. Music can also help to improve focus and concentration, particularly when listening to instrumental or classical music. This can be beneficial for studying, working, or completing other tasks that require mental effort. There are several ways to use music as a form of recreation for stress alleviation. Listening to music is one example. Simply taking the time to listen to your favorite music can be a wonderful way to unwind and reduce stress. This could involve creating a playlist of relaxing or uplifting songs, tuning into a radio station or streaming service that plays music you enjoy, or attending a live concert or performance. Playing music also helps; if you play an instrument or sing, making music can be a great way to relieve stress and express your emotions. Whether you prefer to play alone or with others, engaging in music-making can be a fun and rewarding way to relax and unwind. Dancing to music can be a beneficial way to reduce stress and boost your mood. Whether you prefer to dance alone or with others, letting loose and grooving to your favorite tunes can be a fun and energizing way to relieve tension and stress.

This study aims to test the stress alleviation effect of music recreation on college students in the Xinghai Conservatory of Music, especially in the post-COVID-19 era.

Research objectives

1. To study college students' stress levels
2. To study a music recreation for college student stress
3. To create a music recreation therapy for college students' stress (3 music recreations)

LITERATURE REVIEW

1. College students' stress levels

A study by Wang, C. et al. (2020) found that individuals who were more anxious about COVID-19 reported more severe symptoms of depression, anxiety, and stress. The COVID-19 pandemic has had a significant impact on the mental health of individuals around the world, causing an increase in stress and anxiety levels. Studies have shown that COVID-19-related stress and anxiety are associated with multiple factors. For instance, the fear of virus infection has significantly contributed to stress and anxiety throughout the pandemic. Some are concerned about the virus's health effects and its impact on their loved ones. Social isolation is another major reason. Researchers have linked social isolation and loneliness to elevated levels of stress and anxiety during the pandemic. The lack of social support can exacerbate feelings of anxiety and depression, especially for individuals who already have existing mental health conditions.

A study by Cao, W et al. (2020) found that individuals who were more worried about COVID-19 reported higher levels of perceived stress and anxiety. During the COVID-19 pandemic, the prevalence of anxiety symptoms among college students was 35.4%, while the prevalence of depression symptoms was 20.8%.

A study by Liu X et al. (2022) found that college students in China experienced higher levels of stress, anxiety, and depression during the COVID-19 outbreak compared to before the outbreak. Several studies have also investigated the effectiveness of interventions to reduce post-COVID-19 stress and anxiety levels.

A study by Liu X et al. (2021) found that mindfulness-based interventions were effective in reducing stress and anxiety levels among college students. Similarly, Sharma et al. (2021) found that music therapy was effective in reducing anxiety levels among individuals diagnosed with COVID-19.

According to a study by Li, X et al. (2018), college students experienced increased symptoms of anxiety and depression due to pandemic-related stress. A variety of factors, including fear of contracting the virus, social isolation and loneliness, financial difficulties, uncertainty about the future, academic stress and pressure, lack of social support, and disruption of daily routines and activities, can cause post-COVID-19 stress and anxiety among college students.

2. A music recreation therapy program designed to alleviate stress among college students

In 2019, the gross enrollment rate of higher education in China reached 51.6%, with a total scale of all kinds of higher education in schools reaching 40.02 million. The personnel structure and level of college students are becoming increasingly diverse, and the rapid changes in social lifestyle and increased competitive pressure have led to a sharp rise in mental health problems among college students (Witteveen, D et al., 2020). In terms of physiology, the students' height, weight, and body organs are gradually developing and maturing; their emotions are getting richer; and their thinking and memory ability are gradually developing and improving (Killgore, W et al., 2020). Psychologically speaking, with the completion of secondary education, their minds are relatively mature but not yet completed. As society and the economy have changed, college students now have to deal with a lot of problems in their daily lives. These include the stress of competition in school, difficult relationships with other people, problems finding work, clashing values, the effects of network information, and more. These issues can lead to anxiety, disappointment, and confusion because of their different ideas and interests. In the worst cases, they may act out too much, and their chances of getting a mental illness go up a lot. Particularly in the post-COVID-19 era (Taylor, S. et al., 2020), Compared with verbal counseling before college, college students are reluctant to accept corresponding enlightenment based on their gradually maturing minds. In that case, music recreation has obvious advantages (Sharma, M et al., 2021).

Music has a long history, is highly infectious, and is inseparable from human culture. The ancient Chinese proposed the five elements of music as a way to cultivate their bodies and nourish their minds through the five sounds. In Western countries, in the 1940s, people gradually included music as a medical tool in clinical applications, such as eliminating patients' tension and anxiety (T. E. Carter & L. S. Panisch, 2021). With the development of music applications, people gradually explored the application of music in psychiatric aspects of treatment, and by modern society, music has been progressively applied in various medical fields (D. M. Greenberg & P. J. Rentfrow 2017).

Different music can produce different physiological responses, such as heart rate and pulse, blood pressure, skin potential response, muscle potential and motor response, endocrine and body reactive substances (adrenaline, noradrenaline, endorphins, immunoglobulins), and brain waves. The rhythm of music can significantly influence human behavioral and physiological rhythms, including breathing rate, exercise speed, and heart rate, among others. In addition, different music can elicit a variety of different emotional responses (A. MacRae 2021). Also, music is a unique form of communication. Although a song's lyrics can convey specific messages, the most important communication meaning for music is non-verbal (B. Dobos et al., 2019). Gaston, the father of music therapy, stated, "The power and value of music lie in its nonverbal connotations." This communicative characteristic of music is a key factor for clinical treatment, especially when verbal efforts fail, and music can help establish a positive doctor-patient relationship, which is the basic

motivation for successful treatment (Lai, H.L. et al., 2008). Moreover, physical structures (vibrations of air molecules) form music, a reality that exists in time. Music therapy is a variety of systematic ways of experiencing music using sound, not just simple, casual, or unplanned receptive listening (Cırık et al., 2018). For example, if the client is a child who does not understand music or has a hearing impairment, the music therapist can use a variety of acoustics and musical instrument vibrations to make the client experience music (X. Fan & L. Zhang 2018).

RESEARCH METHODOLOGY

1. Participants

The study subjects recruited 100 students from Xinghai Conservatory of Music in China. The study provided both verbal and written explanations to the subjects. The university ethics committee approved the study and required all subjects to sign an informed consent form and a study confidentiality agreement.

2. Tools for collecting data

The study project included the following inclusion criteria: (a) undergraduate students; (b) new freshmen aged 18–25 years; and (c) all subjects underwent testing using the Self-Rating Anxiety Scale (SRAS) and the Perceived Stress Scale-14 items (PSS-14) as a combined test. Exclusion criteria were: (a) suicidal thoughts or behaviors; (b) past or current diagnosed mental illness; and (c) currently receiving therapy or anti-anxiety-depression medication elsewhere. The researcher will ask participants to participate in at least 30 minutes of daily music recreation at the same time for a period of 4 weeks. The researcher will provide them with a variety of musical activities, such as listening to music, playing an instrument, and singing. The study will also provide them with resources like playlists and online tutorials to enhance their participation in the activity.

A widely used psychological assessment tool, the PSS-14 scale measures the level of perceived stress individuals experience in their daily lives. Stanley Cohen, PhD, and his colleagues developed it in 1983 and have used it in various research studies and clinical settings to assess perceived stress levels in different populations. The PSS-14 consists of 14 items designed to evaluate an individual's thoughts, feelings, and ability to cope with stressful situations they may have encountered in the past month. The PSS-14 is a self-reported measure, with individuals indicating their level of agreement with each statement on a 5-point Likert scale, ranging from 0 (never) to 4 (very often). Thus, the total possible score on the PSS-14 ranges from 0 to 56, with higher scores indicating greater perceived stress. The items on the PSS-14 are as follows:

1. Since last month, how often have you been upset by something unexpected?
 2. In the past month, how often have you felt that you were unable to control the important things in your life?
 3. In the past month, how often have you felt nervous and stressed?
 4. In the past month, how often have you felt confident about your ability to handle your personal problems?
 5. In the past month, how often have you felt that things were going your way?
 6. In the past month, how often have you found that you could not cope with all the things that you had to do?
 7. In the past month, how often have you been able to control irritations in your life?
 8. Last month, how often did you feel in control?
 9. In the past month, how often have circumstances beyond your control angered you?
 10. How many times in the past month did you feel overwhelmed by problems?
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1. In the past month, how often have you been able to handle your personal problems?
 2. In the past month, how often have you been able to control the way you spend your time?
 3. Last month, how often did you feel like you were achieving your goals?
 4. In the past month, how often have you been able to stay calm and clear-headed?

3. Data collection

At the start and end of the 4-week intervention period, participants will be required to complete baseline and follow-up assessments. The researcher will collect data using online surveys.

4. Data analysis

1. A researcher will use descriptive statistics to summarize the demographic characteristics of the participants, including age, gender, and academic level.
2. A researcher will use Cronbach's alpha coefficient to assess the reliability of the Perceived Stress Scale-14 (PSS-14). A researcher will consider a Cronbach's alpha coefficient of 0.70 or higher to be acceptable reliability for the scales.
3. A researcher will conduct correlation analysis to determine the strength and direction of the relationships between the variables. A researcher will use Pearson's correlation coefficient to assess the relationship between the PSS-14 scores.
4. A researcher will use multiple regression analysis to examine the predictive ability of the independent variable (music recreation) on the dependent variable (perceived stress and anxiety). The analysis will also control for potential confounding variables such as age, gender, and academic level.
5. Data Visualization: To effectively interpret and communicate the results, we will present the findings using tables, graphs, and charts. A researcher will carry out the data analysis procedure using statistical software such as SPSS or R. The significance level will be set at $p < 0.05$ for all statistical analyses.

RESULTS

1. To investigate the stress levels of students

The study subjects recruited 100 students from Xinghai Conservatory of Music in China. This paper divides the study of college students' stress levels into two parts:

1.1 Stress level evaluation: The mean stress score of first grade students is 38.81 ± 8.21 (mean score is 38.81, standard deviation is 8.21, ranging from 30.6 to 47.02, moderate level to high level stress), that of second grade students is 42.54 ± 6.60 (mean score is 42.54, standard deviation is 6.60, ranging from 35.94 to 49.54, moderate level to high level stress), and that of third grade students is 45.40 ± 2.27 (mean score is 45.40, standard deviation is 2.27, ranging from 43.13 to 47.67, high level stress). And the scores of senior-class students were greater than those of junior-class students. There were significant statistical differences in the stress levels of the three grades, and the higher the grade, the greater the stress ($F(2,154) = 6.01, p < 0.01$). Freshman grades had lower stress levels than second grade students ($t = 2.66, p = 0.024$) and senior students ($t = 2.63, p = 0.026$) (Figure 1). Related documents will be seen in the appendix.

Table 4.2 PS-14 scores of all participants before interference of music actions

Grade	Stress scores	Stress level
1	38.81 ± 8.21	Moderate to high level
2	42.54 ± 6.60	Moderate to high level
3	45.40 ± 2.27	High level

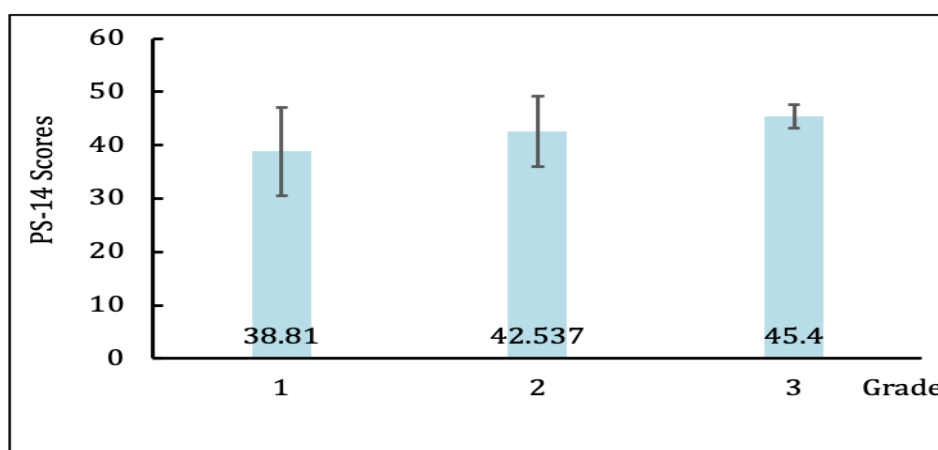


Figure 1: Stress level of the three grades. Error bar= +/- 1SE.

Grade 1 and Grade 2: Moderate level to High level stress, Grade 3: High level stress.

1.2 Student Interviews: A researcher conducted interviews with 9 subjects, each consisting of 3 students from each grade, for a total of 3 grades.

Reasons for stress:

- Four students (44%) believed that time management caused pressure.
- Six students (67%) believed that studying puts pressure on them.
- Four students (44%) believed that mental health concerns cause pressure.
- Three students (33%) believed that financial responsibilities put pressure on them.
- Four students (44%) believed that sleep deprivation causes pressure.
- Two students (22%) believed that pressure comes from social adaptation stress.
- Four students (44%) believed that pressure comes from a competitive environment.

Relief and music activity for stress:

- Seven students stated that they relieve stress by music recreations (78%) and exercising (78%).
- Six students (67%) stated that they relieve stress by reading.
- Five students (56%) stated that they relieve stress through socializing.
- Two students (22%) stated that they relieve stress through meditation.
- In addition, Six students (67%) stated that they relieve stress by singing.
- Six students (67%) stated that they relieve stress by listening to music.
- Two students (22%) stated that they relieve stress by dancing.
- Four (44%) students stated that playing musical instruments relieves stress.

In addition, college life, characterized by academic pursuits, newfound independence, and social exploration, is a pivotal period of growth and self-discovery. However, it is also a time marked by challenges that can lead to stress for many students. Academic pressures, financial responsibilities, and the quest for social belonging influence the multifaceted nature of stress in college. In this exploration, we delve into the reasons behind the stress experienced by college students, examining the academic, financial, and social factors that contribute to this phenomenon. As stress becomes an integral part of the college experience, we will also explore various coping strategies that can provide relief, emphasizing the therapeutic role of music. The essay will shed light on how certain music styles, known for their calming qualities, can serve as a powerful tool for alleviating stress and promoting a sense of tranquility among college students. As we navigate the complex landscape of college stress, understanding its origins and effective coping mechanisms, we embark on a journey to explore the harmonious intersection of music and well-being in the lives of those navigating the challenges of higher education.

2. To study music to relieve stress among students

2.1 Music recreations and its characteristics and principles suitable for stress relief

Music is a powerful tool for relaxation and stress relief, offering a sanctuary for individuals seeking solace from everyday life pressures. Its diverse forms and expressions serve as a therapeutic avenue for emotional release, mental rejuvenation, and spiritual renewal. Fundamental principles guide music recreations for stress relief, encompassing a holistic understanding of music's role in facilitating emotional release, promoting self-awareness, and cultivating resilience. These principles include tempo, melody, rhythm, and texture. By incorporating these elements, music recreations offer a multi-dimensional approach to stress relief, engaging both the mind and body in a harmonious interplay of sounds and sensations. By embracing music recreations, individuals can embark on a transformative journey of self-discovery and self-care, harnessing the restorative power of music to cultivate inner peace, balance, and well-being.

Music therapy is a holistic approach that addresses emotional, physical, and social aspects of well-being. It involves listening to music with slow and moderate tempos, simple melodies, harmonious harmony, gentle instrumentation, smooth dynamics, and repetitive patterns. Music can help reduce stress, anxiety, and mood by promoting relaxation and lowering cortisol levels. Playing instruments can also be beneficial for individuals, providing a non-verbal outlet for their emotions, enhancing emotional regulation, creativity, motor skills improvement, cognitive function stimulation, social interaction, and communication. It can also release tension and energy, provide a cathartic release, and boost self-esteem. Various instruments and sounds can create therapeutic soundscapes, fostering calming or uplifting environments. Singing, with its simple and soothing melodies, slow tempos, positive lyrics, familiar and comforting tunes, nature-inspired themes, breath-focused songs, repetitive phrases, gentle dynamics, mindful singing practices, personalization, cultural relevance, expressive vocal techniques, group singing, and a variety of repertoire, can aid in stress relief. Singing can be used for stress relief, social connection, and building confidence. It can promote therapeutic outcomes and enhance overall quality of life by addressing emotional, physical, and social aspects of well-being. By choosing the right music, therapists can create personalized playlists tailored to individual needs and foster social connections. In conclusion, music therapy offers a versatile and holistic approach to addressing emotional, physical, and social aspects of well-being. By incorporating music into one's daily life, individuals can experience a more positive, calming, and effective way to manage their emotions and improve their overall well-being.

2.2 Interviews with specialists

Since the 1940s, various medical fields have applied music therapy, tracing its long history back to ancient China. Its principles lie in its impact on emotional, psychological, and physiological states, regulating emotions, lowering anxiety, and reducing stress levels. For college students facing academic challenges, music therapy offers a soothing and expressive outlet. Music therapy can take various forms, including listening to music, playing instruments, singing, and more. As a music teacher, one can organize a variety of activities, such as music appreciation sessions, choir groups, and ensemble playing, tailoring the approach to participants' needs and preferences. Choosing music to listen to depends on the music's characteristics and intended effects. For stress relief, it is advisable to choose slow tempos and gentle melodies, such as classical music, ambient music, or nature-inspired sounds. Instrumental play should focus on the therapeutic aspect rather than technical proficiency. Instruments should be simple and easy to learn, featuring uncomplicated melodies and rhythms that are comfortable to play on the selected instrument. Emphasizing enjoyment in the process rather than perfection is crucial. In summary, music therapy is a viable and effective approach to alleviate stress and anxiety in college students. Individual preferences and therapeutic goals should guide the choice of music and the format of the therapy, fostering a positive and healing experience. Music therapy is a non-pharmacological intervention that can help college students alleviate stress and anxiety. It can take a variety of forms, including receptive forms like listening to music, active forms like singing or playing instruments, improvisation, songwriting, and group music-making activities. The choice of music therapy modality depends on the therapeutic goals, client

preferences, and the music therapist's expertise. When selecting music for listening therapy, consider the client's emotional state, preferences, and therapeutic goals. Music with slow tempos, gentle melodies, and harmonious compositions is preferred for relaxation and stress reduction. Therapeutic settings commonly use genres such as classical, ambient, nature sounds, and instrumental compositions. In instrumental performance therapy, the selection of music depends on the client's musical proficiency, instrument of choice, and therapeutic objectives. People often prefer simple melodies, familiar tunes, and pieces with calming or uplifting qualities. Instrumental improvisation therapy encourages spontaneous musical expression using instruments, creating a supportive environment for improvisation, exploration, and emotional expression. Therapists may provide musical prompts, themes, or structured improvisational activities to guide the client's musical journey.

In conclusion, Music can be a powerful tool for stress relief, engaging our emotions, and promoting tranquility. Its rhythmic patterns, melodies, and textures create a sensory experience that helps individuals unwind and release tension from daily stressors. Music with universal themes like love, hope, resilience, and belonging can resonate deeply with individuals in therapy, fostering emotional connection and reflection. Choosing songs that are familiar or simple to learn can encourage active participation and engagement from diverse backgrounds and abilities, promoting inclusivity and empowerment in therapy. Singing is another valuable resource for stress relief, tapping into the essence of human expression. It engages multiple physiological and psychological processes, producing endorphins, which promote a sense of well-being and relaxation. Singing also encourages deep and rhythmic breathing, activating the body's relaxation response and regulating heart rate and blood pressure. Integrative music-making also contributes to stress relief. The physical act of playing an instrument requires focused attention and coordination of motor skills, promoting calm and inner peace. The rhythmic patterns and melodic structures of instrumental music provide a rhythmic framework that can regulate physiological responses to stress. In conclusion, music, singing, and instrumental music-making are all effective ways to promote relaxation and well-being.

3. To create a music recreation therapy for college students' stress

3.1 Created music activity

Creating the music activity set took a total of 28 days (4 weeks), or 0.5 or 1 hour per day. The activity incorporates a variety of musical activities, such as: This activity involves listening to music, singing, and playing musical instruments. The details are as follows:

Table 1: Displays expert scores on music activity for Stress Relief

Comment list	Estimating the opinions of experts			Total Score	IOC Value	Interpret result
	1	2	3			
1. Creative musical activities are in line with the academic principles of music therapy.	1	1	1	3	1.00	available
2. The musical activities created are consistent with the stated objectives.	1	1	1	3	1.00	available
3. The designed "singing activity" is suitable for organizing music activities to reduce stress.	1	0	1	2	0.66	available
4. The designed "music listening activity" is suitable for organizing music activities to reduce stress.	0	1	1	2	0.66	available

5. Musical "instrument playing activities" are designed to be appropriate for organizing music activities to reduce stress.	1	1	0	2	0.66	available
6. The duration of the music event is appropriate.	1	0	1	2	0.66	available
7. Overall, the developed music activities for stress are appropriate.	1	1	1	3	1.00	available

Comment list	Estimating the opinions of experts			Total Score	IOC Value	Interpret result
	1	2	3			
8. The format of musical activities (singing, playing musical instruments and listening to music) is balanced and appropriate.	1	1	0	2	0.66	available
9. The questionnaire on satisfaction of participants in music activities to reduce stress is appropriate.	0	1	1	2	0.66	available
10. Music activities designed to reduce stress can be used as a guideline for developing music therapy activities.	1	1	1	3	1.00	available
Total	8	8	8	24	7.96	
Average	0.8	0.8	0.8	2.4	0.796	

Source: Huimin Liang (2024)

Table2: Analyzing opinions of experts on music activity for stress relief

Items	IOC
1.Creative musical activities are in line with the academic principles of music therapy.	1.00
2.The musical activities created are consistent with the stated objectives.	1.00
3.The designed "singing activity" is suitable for organizing music activities to reduce stress.	0.66
4. The designed "music listening activity" is suitable for organizing music activities to reduce stress.	0.66
5. Musical "instrument playing activities" are designed to be appropriate for organizing music activities to reduce stress.	0.66
6. The duration of the music event is appropriate.	0.66
7. Overall, the developed music activities for stress are appropriate.	1.00
8. The format of musical activities (singing, playing musical instruments and listening to music) is balanced and appropriate.	0.66

Items	IOC
9. The questionnaire on satisfaction of participants in music activities to reduce stress is appropriate.	0.66
10. Music activities designed to reduce stress can be used as a guideline for developing music therapy activities.	1.00

Source: Huimin Liang (2024)

According to the above table, all titles IOC are greater than 0.5, so all entries IOC are qualified, and the outline has good content validity and can be used for subsequent experiments. According to the IOC formula, the IOC value is:

$$IOC = \frac{\sum R}{N}$$

$$\frac{1.000 + 1.000 + 0.660 + 0.660 + 0.660 + 0.660 + 1.000 + 0.660 + 0.660 + 1.000}{10} = 0.796$$

From Table 1 Analyzing opinions of experts on music activity for Stress Relief. Can be explained as follows.

Issue 1 Creative musical activities are in line with the academic principles of music therapy. It can be concluded that the IOC value is 1.00 translated as usable.

Issue 2 The musical activities created are consistent with the stated objectives. It can be concluded that the IOC value is 1.00 translated as usable.

Issue 3 The designed "singing activity" is suitable for organizing music activities to reduce stress. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 4 The designed "music listening activity" is suitable for organizing music activities to reduce stress. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 5 Musical "instrument playing activities" are designed to be appropriate for organizing music activities to reduce stress. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 6 The duration of the music event is appropriate. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 7 Overall, the developed music activities for stress are appropriate. It can be concluded that the IOC value is 1.00 translated as usable.

Issue 8 The format of musical activities (singing, playing musical instruments and listening to music) is balanced and appropriate. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 9 The questionnaire on satisfaction of participants in music activities to reduce stress is appropriate. It can be concluded that the IOC value is 0.66 translated as usable.

Issue 10 Music activities designed to reduce stress can be used as a guideline for developing music therapy activities. It can be concluded that the IOC value is 1.00 translated as usable.

In addition to the experts providing Proposals and recommendations from experts about created a music activity to reduce stress, they can be:

Additional suggestions

1. It is suggested to further understand and andsummarize the shortcomings of the current university measures to relieve the psychological pressure of college students.
2. It is suggested that more effective music entertainment activities should be constantly found and applied in the subsequent research, so as to relieve the pressure of college students.
3. It can further expand the value and significance of college students' mental health to the school and social development.

3.2 Stress analysis after music recreation

Sheldon Cohen, PhD, and his colleagues developed the PSS-14 scale, a widely used psychological assessment tool, in 1983 to measure perceived stress levels in various populations. The scale consists of 14 items that assess an individual's thoughts and feelings about stressful situations they may have encountered in the past month, as well as their ability to cope with those situations. The PSS-14 is a self-reported measure, with individuals indicating their level of agreement with each statement on a 5-point Likert scale, ranging from 0 (never) to 4 (very often). Thus, the total possible score on the PSS-14 ranges from 0 to 56, with higher scores indicating greater perceived stress. The items on the PSS-14 are as follows:

1. Since last month, how often have you been upset by something unexpected?
2. In the past month, how often have you felt that you were unable to control the important things in your life?
3. In the past month, how often have you felt nervous and stressed?
4. In the past month, how often have you felt confident about your ability to handle your personal problems?
5. In the past month, how often have you felt that things were going your way?
6. In the past month, how often have you found that you could not cope with all the things that you had to do?
7. In the past month, how often have you been able to control irritations in your life?
8. Last month, how often did you feel in control?
9. How often have circumstances beyond your control angered you in the past month?
10. How many times in the past month did you feel overwhelmed by problems?
11. In the past month, how often have you been able to handle your personal problems?
12. In the past month, how often have you been able to control the way you spend your time?
13. Last month, how often did you feel like you were achieving your goals?
14. In the past month, how often have you been able to stay calm and clear-headed?

This can be particularly beneficial for individuals who may find it challenging to articulate their feelings verbally, offering them a safe and supportive outlet for processing and exploring their emotions. Furthermore, the social aspect of making music with others can enhance instrumental play's therapeutic experience. Collaborative music-making fosters a sense of connection and camaraderie among participants, promoting feelings of belonging and support. Engaging in group music activities can also provide a sense of structure and routine, which can be grounding and reassuring, especially during times of stress and uncertainty.

CONCLUSION

The origins of stress among college students are multifaceted and intertwined with the unique challenges of academic life, personal development, and societal expectations. From the pressures of academic performance and looming deadlines to the complexities of social relationships and financial burdens, students face a myriad of stressors that can take a toll on their mental, emotional, and physical well-being. The transition to college represents a significant life change for many students, marked by newfound independence and responsibility. This period of adjustment can be overwhelming as individuals navigate unfamiliar academic demands, establish new social connections, and grapple with the pressures of defining their future paths. Moreover, the competitive nature of higher education and the pursuit of academic excellence can fuel feelings of inadequacy, imposter syndrome, and self-doubt, further exacerbating stress levels.

In conclusion, our current research suggests that engaging in music recreation can serve as a powerful tool for alleviating stress among college students. Through various forms, such as playing instruments, singing, or simply listening to music, individuals can experience a range of physiological and psychological benefits that promote relaxation and well-being.

DISCUSSION

The origins of stress among college students are diverse and pervasive, stemming from a combination of academic, social, financial, and personal factors. These stressors can have significant

implications for students' mental, emotional, and physical well-being, affecting their academic performance, social relationships, and overall quality of life. However, research suggests that music recreation can serve as a powerful tool for alleviating stress and promoting well-being among college students.

Firstly, academic pressures represent one of the primary sources of stress for college students. The demands of coursework, exams, and deadlines can create feelings of overwhelm and anxiety, particularly during periods of high workload or academic challenges. Music recreation provides students with a constructive outlet for stress relief, offering a means of escape from the rigors of academia and allowing them to unwind and recharge. Engaging in musical activities, such as playing instruments, singing, or listening to music, can help students relax, refocus, and regain perspective, thereby improving their ability to cope with academic stressors. Additionally, social pressures and relationship dynamics can contribute to stress among college students. The transition to college often involves navigating new social environments, establishing friendships, and managing conflicts, which can be daunting and overwhelming for many individuals. Music recreation fosters social connections and a sense of community, providing students with opportunities to collaborate, connect, and bond over shared interests. Whether through joining a choir, participating in a band, or attending music events, students can find support, camaraderie, and belonging within musical communities, thereby mitigating feelings of loneliness and isolation associated with social stressors.

Furthermore, financial concerns represent a significant source of stress for many college students, particularly those facing tuition fees, living expenses, and debt. Various affordable or free avenues, such as community music programs, campus events, or online resources, offer a cost-effective means of stress relief through music recreation. Engaging in musical activities allows students to escape the financial pressures of college life and find joy, fulfillment, and meaning outside of monetary constraints, thereby promoting resilience and well-being in the face of financial stressors.

Moreover, personal factors such as mental health issues, family dynamics, and identity exploration can contribute to stress among college students. Studies have demonstrated the therapeutic benefits of music recreation for mental health, providing a non-invasive, accessible, and enjoyable medium for self-expression and emotional regulation. Whether through playing instruments as a form of catharsis, listening to music as a means of mood enhancement, or participating in music therapy sessions, students can harness the healing power of music to manage symptoms of anxiety, depression, and stress-related disorders, thereby promoting holistic well-being and resilience.

In conclusion, the results of the origins of stress among college students underscore the complex interplay of academic, social, financial, and personal factors that contribute to students' well-being. However, music recreation emerges as a promising strategy for alleviating stress and promoting resilience among college students, offering a holistic approach to well-being that addresses the diverse needs and challenges of individuals in higher education. By recognizing the therapeutic benefits of music and integrating music recreation programs into campus wellness initiatives, colleges and universities can empower students to cultivate coping skills, build social connections, and thrive amidst the pressures of college life.

RECOMMENDATIONS

This study emphasized that it is imperative for colleges and universities to prioritize student well-being and provide comprehensive support systems to address the root causes of stress. This includes implementing proactive measures such as mental health resources, counseling services, and stress management programs that empower students to develop coping strategies, build resilience, and cultivate a sense of belonging within the campus community.

Research extensively documents the therapeutic effects of music on stress reduction, demonstrating its ability to lower cortisol levels, decrease heart rate, and mitigate symptoms of anxiety and depression. Music recreation provides a healthy outlet for emotional expression, allowing students to channel their feelings and find solace in the rhythms and melodies that resonate with them. In

addition to its immediate benefits, engaging in music recreation can also cultivate valuable coping skills that students can apply in other areas of their lives.

Participating in musical activities fosters a sense of community and connection, as students often come together to collaborate and share their passion for music. This social support can buffer against the negative effects of stress, offering a sense of belonging and camaraderie during challenging times. Learning to play an instrument or mastering a new piece of music requires discipline, perseverance, and focus—qualities that can enhance resilience and adaptability in the face of academic or personal challenges.

In light of these findings, colleges and universities should consider integrating music recreation programs into their wellness initiatives, providing students with accessible opportunities to explore and enjoy the therapeutic power of music. By prioritizing the holistic well-being of their student body, institutions can create a more supportive and conducive environment for academic success and personal growth.

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