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Application of music therapy in college student athletes' mental health education

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Abstract

This study aims to investigate music therapy's effect on college athletes' mental health education. This study used a randomized controlled experimental method to recruit 49 college badminton participants for intervention. Before the intervention, all participants were randomly assigned to two groups: the mindfulness group (n = 25) or the control group (n = 24). They received a seven-week course in music. The athletes in the control group received no intervention. After completing MAIC training, the mindfulness group college athletes dramatically outperformed the control group college athletes in mindfulness, anxiety, sadness, training satisfaction, and competition acceptance. There were statistically significant differences (P < 0.01) between groups in the mindfulness, anxiety, training, Competition Satisfaction, and acceptance categories. Only mindfulness, anxiety, training, Competition Satisfaction, and acceptance characteristics differed significantly between groups (P 0.01). There were significant differences (P < 0.001) in depression, training, and Competition Satisfaction and acceptance variables between the post-test and the measurement three months after the conclusion of the intervention; there were no significant differences in mindfulness and anxiety variables after 7 weeks of training. Practically, athletes with good mental health may perform well; therefore, it is the job of the college administration to assist these athletes in enhancing their comprehension and learning, which could be advantageous to their performance. Athletes can benefit from music therapy to improve their mental health and should be motivated to increase their mental health knowledge. Numerous studies have addressed the mental health concept. However, this study is necessitated by the fact that previous research failed to evaluate the effect of music therapy on the mental health education of athletes.

Keywords: *Music therapy; badminton players; mental health, college students, students' mental health*

1.Introduction

In the work of college student athletes' mental health education, the application significance of music therapy is primarily reflected on two levels: first, the application of music therapy in college student athletes' mental health education can promote the diversification of college student athletes' mental health education methods. Second, the application of music therapy in college student athletes' mental health education can facilitate the

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improvement of college student athletes' mental health education outcomes (de Barros Fleury, Approbato, & Barbosa, 2021). Music therapy, which includes receptive, creative, and impromptu music therapy, is an effective way of psychological assistance. Incorporating these treatment modalities into the mental health education system for college student-athletes can provide teachers and students with novel mental health education experiences, which is crucial for enhancing the efficacy of mental health education (Sholeh & Supena, 2021). Second, music therapy may effectively treat all psychological issues that college student-athletes confront and help them create healthy emotions. For instance, music therapy can assist college student-athletes in overcoming issues such as depression and social anxiety and encourage college student-athletes to effectively eliminate negative emotions and interpersonal barriers, thereby providing a solid foundation for students' talent development.

Music therapy is an emerging field of study. It possesses unique qualities in disease prevention, psychological disorder diagnosis, and treatment. Its influence and effectiveness have been positively welcomed in the medical, psychiatric, and educational fields. During mental health education in colleges and universities, music therapy should be incorporated into the mental health education of college student-athletes. The quality of mental health education in colleges and universities should be enhanced from the perspective of the positioning, scope of application, mode, or channel of use of music therapy in colleges and universities (Gassner & Mayer-Ferbas, 2021).

Various facets of the mental health of athletes have been examined in the literature (Luo et al., 2022). Tortella et al. (2021) reported that students' required physical training could improve their mental health. Gonzalez Mendez et al. (2022) concluded that students' stress management skills benefit their mental health. Zhang et al. (2022) emphasized that students with poor mental health are more upset due to their poor academic performance. According to Lo, Gupta, and Keating (2018), mental health literacy and education are required to improve student performance. Pan et al. (2021) concluded that students' mental health can be improved by controlling stress. Antwi et al. (2022) found that athletes can be productive if they have good control over their mental health, which can be achieved by external encouragement and coaching. Prior studies underlined that athletes should avoid stress since it might negatively impact their mental health, which is crucial to their performance.

This study aims to investigate the effect of music therapy on the mental health of collegiate athletes. This work addresses a substantial gap in the body of knowledge that was not addressed in previous research. Existing research has examined several aspects of student mental health, but no study has assessed the effect of music therapy on the mental health of collegiate athletes. This study is founded on the original premise of advancing the body of knowledge. As this study expands the mental health literature, the substantial implications of this study are crucial for the theory.

Moreover, the practical implications of this

study to promote the mental health of Chinese student-athletes at various academic institutions are amazing. In addition, the findings of this study can be generalized to determine the influence of other variables on one another. In addition, the future directions of this work are unusual in that they will investigate father literature to contribute to the theory as literature.

2.Literature Review

The use of music therapy in the mental health education of collegiate athletes has not gained widespread acceptance. According to its application status, Liu (2021)'s research knowledge is unbalanced. Members of the study team have created questionnaires for several universities. Only 32% of the 250 surveyed collegiate athletes are willing to undergo music therapy for psychological issues (Liu, 2021). It is common to observe that music therapy is not well understood globally. Even in the United States, where music therapy is most prevalent, most people find it quite weird. This is particularly the case in China. Not only do college student-athletes lack knowledge, but so do members of society. Numerous studies have shown that the development of positive qualities will reduce negative behaviors (Ramírez et al., 2020) and that improving mental health will also considerably minimize the hidden hazards that might lead to psychosomatic ailments (Hariyono, Pratiwi, & Kotijah, 2021). Therefore, focusing on the positive aspects of college student athletes' mental health may strengthen the foundation for the prevention of psychological problems among college student-athletes, thereby bringing new vitality and vigor to the study and practice of college student athletes' mental health. The psychological intervention of college student-athletes should be positioned to eliminate psychological diseases and simultaneously strengthen the cultivation or development of positive psychological resources (Crossan, Ellis, & Crossan, 2021). The cultivation or development of positive psychological resources is a prerequisite for individuals to achieve their best performance and competitive state (Burić, 2021). Therefore, the mental health of college student-athletes should incorporate the following two aspects: the reduction of psychological hurdles for college athletes; Figure 1 depicts the specific mental health issues they have in achieving their optimal competitive psychological state. The research of Dan Ran on Chinese shooters indicates that mindfulness training can enhance collegiate athletes' mindfulness, focus, and relaxation skills (Chang et al., 2020). In addition, a meta-analysis conducted by Coleman and Roberts (2021) and other studies demonstrate that the level of mindfulness and sports performance of college student-athletes have been improved to variable degrees using various mindfulness training techniques. Throughout China's modernization, music therapy has made significant strides. Some medical institutions have experimentally applied music therapy and other methods to clinical treatment. Many scholars have attempted to combine traditional Chinese medical theories and methods, creating many new contents on Yin-Yang therapy and supplementing some contents of contemporary music therapy,

thereby expanding the scope of this discipline. Theoretically, the psychological adjustment of music receives increasing focus (Tran, 2021). Using the notion of seven emotions, as an illustration, this paper demonstrates that when emotions are out of balance, they may be restored to equilibrium by applying the premise that everything generates and overcomes one another. Similarly, there have been recent advances in the physiological regulation of music. Using traditional culture's "integration of heaven and man" thesis as an example, it is suggested that nature and humans are "isomorphic and heterogeneous" and that music possesses the same characteristic as all things in the world. Consequentially, music written using five tones can be consistent with human organs regardless of how it evolves (Breslin et al., 2022). This is how Olive et al. (2021) describes music therapy. He stated that music therapy is a medical treatment that uses music as a medium. He believes that doctors or therapists should be the protagonists of therapy, while musicians, nurses, and clinical psychologists should assist doctors in completing the prescribed treatment.

Figure. 1 Problems of college student athletes' mental health

Music therapy has achieved significant theoretical and clinical advancements, but it can also move beyond its original application sector and penetrate the mental health education of today's college athletes. One may say that this is not idle rhetoric. Literature studies have explored many aspects of music therapy for mental health and deemed it beneficial. Music theory is beneficial for mental health since it helps release emotions and soothe the mind. In the meantime, music therapy is recommended for children with stress issues because it is utilized to assist them in overcoming their emotions. On the other hand, music therapy is beneficial for individuals who experience anxiety during their everyday education.

3.Methodology

According to the goal of this study, there are two hypotheses: Compared to the control group, the acceptability level of college student-athletes who participate in the Miac intervention will increase after the intervention and over the three-month

follow-up period.

3.1 Study design

This research is a randomized controlled experiment (Samoilov & Aleshicheva, 2020). Before the trial, all participants were separated by lot into two groups: the mindfulness group (n = 25) and the control group (n = 24). During the experiment, the mindfulness group of collegiate athletes underwent a seven-week MAIC course, but the control group did not receive any intervention. All psychological characteristics were assessed three times: before (T1), after (T2), and three months after (T3) the intervention (T3). This study employs a single-blind experiment in which the subjects are unaware of the experiment's goal. The first author recruited subjects; another psychology graduate student who had nothing to do with the investigation was selected by random drawing. The lottery order will be kept secret from the researchers involved.

3.2 Study subjects

50 badminton players were chosen as participants for this study. One of them was excluded due to their mindfulness practice experience. In this study, a total of 49 subjects (29 males and 20 females) were chosen, comprising 23 first-year college student-athletes (11 males and 12 females) and 26 master-level college student-athletes (18 males and 8 females). In this intervention, 49 participants completed the first test evaluation (T1), the second test evaluation (T2) was conducted after the 7-week intervention, and 49 participants completed both test evaluations, as depicted in Figure 2. After the third month of follow-up, three months after the conclusion of the intervention, the number of college student-athletes participating in the Miac intervention who completed the mindfulness level and test evaluation (T3) was 49, and the attrition rate was 0.

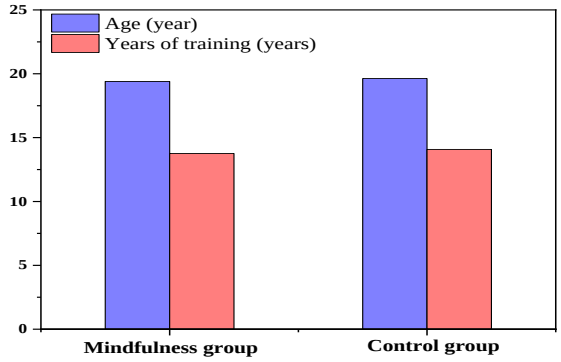

Figure. 2 Demographic variables of subjects

3.3 Measuring tools

The simplified version of the Chinese five-dimensional mindfulness questionnaire uses the five-point Likert scoring system, with values ranging from 1 to 5 corresponding to "totally inconsistent" to "absolutely consistent." The overall area ranges between 39 and 195 square feet. The Chinese version of the questionnaire has strong internal consistency and retest reliability (P = 0.40-0.71 = 0.55-0.74) among college student-athletes. The greater the total score on the questionnaire, the greater the mindfulness level. Sports competition anxiety questionnaire. There are 15 items on the scale, five of which do not contribute to the overall score, and the Likert scale is used for scoring. The overall score ranges from 90 to 270 points. The scale's average reliability was 0.77. The anxiety level of college student-athletes before the competition was proportional to their total score on the questionnaire.

3.4 Data processing and analysis

This study used repeated measures ANOVA to assess mindfulness intervention's influence on college student athletes' mental health

(Stamatis et al., 2020). Inter-group variables were treatment type (intervention group and control group) and assessment time (T1, T2, and T3). The dependent variables included acceptance, mental health (depression, anxiety, training, and competition satisfaction), and mindfulness. After Anona, additional post hoc multiple comparisons were conducted. Independent sample t-test was used to evaluate the difference between post-test groups, while paired sample t-test was used to test the difference between intra-group variance. spss22.0 processed the data (Chow et al., 2020).

4.Results and Discussion

4.1 Descriptive statistical analysis of each dimension of the pre-test, post-test, and three months after the intervention (n = 49)

This study determines the descriptive statistical analysis of each dimension of the pre-test, post-test, and three months after the intervention. Table 1 displays the mean value (m), standard deviation (SD), skewness, and kurtosis of each variable in the two groups at three separate time points.

Table 1

Descriptive statistical analysis on each dimension of the front side, the backside, and the back side at the end of 3 months after the intervention

variable	Front side				Rear side				After 3 months of intervention			
	M	SD	Skew	Kur	M	SD	Skew	Kur	M	SD	Skew	Kur
mindfulness												
Mindfulness group	110.11	7.66	-0.14	-1.18	122.41	10.03	-0.17	0.03	122.16	8.97	-0.33	0.03
Control group	110.71	8.06	-0.06	-1.24	111.17	7.51	-0.12	-0.82	110.83	7.31	-0.08	-1.00
anxious												
Mindfulness group	16.20	2.58	-1.66	2.17	13.40	2.31	0.48	-0.41	13.56	2.47	0.19	-0.61
Control group	16.88	2.23	-1.29	1.94	17.13	2.11	-0.87	1.94	16.92	2.26	-0.53	0.69
depressed												
Mindfulness group	4.12	3.94	1.65	2.98	2.80	2.60	2.18	6.22	3.16	2.88	1.99	5.19
Control group	4.13	3.56	1.69	3.00	3.92	3.51	1.78	3.58	3.96	3.48	1.81	3.70
Training and Competition Satisfaction												
Mindfulness group	28.68	2.06	-0.06	-1.07	31.92	3.05	-0.04	-1.45	31.20	3.32	0.16	-1.04

Control group	28.67	1.97	-0.53	-0.33	28.46	1.96	-0.41	0.10	28.42	2.00	-0.53	-0.49
accept												
Mindfulness group	28.37	3.27	0.84	-0.07	32.48	4.04	0.09	-0.70	31.56	3.94	0.06	-0.75
Control group	28.29	3.31	1.27	1.92	28.75	3.15	1.21	1.79	28.71	3.38	1.25	2.46

4.2 Repeated measurement ANOVA of intervention effect

At the pre-test, there were no significant differences between the groups in any variable ($P > 0.05$). The repeated measurement ANOVA results indicated that the interaction between groups and time was significant for variables including mindfulness, anxiety, sadness, training, and Competition Satisfaction and acceptance (see Table 2).

Table 2

Results of variance analysis of repeated side variables

Variable	Group * time
mindfulness	F（2,47）=129.65，P<0.001，η2=0.73
anxious	F（2,47）=46.79，P<0.001，η2=0.50
depressed	F（2,47）=9.25，P<0.002，η2=0.16
Training and Competition Satisfaction	F（2,47）=28.58，P<0.001，η2=0.38
accept	F（2,47）=36.74，P<0.001，η2=0.44

After multiple comparisons, it was found that after 7 weeks of a mindfulness intervention, there were significant differences in mindfulness, anxiety, training, and Competition Satisfaction and acceptance variables between the groups ($P < 0.01$). When measured three months after the end of the intervention, the difference between the groups only existed in mindfulness, anxiety, training, and competition Satisfaction and acceptance variables ($P < 0.01$) (see Table 3).

Table 3

t-test results of independent samples between groups

variable	Front side			Rear side			After 3 months of intervention		
	t value	P value	95%CI	t value	P value	95%CI	t value	P value	95%CI
mindfulness	-0.30	0.76	[-5.20,3.84]	4.43	0.00	[6.14,16.36]	4.84	0.00	[6.61,16.04]
anxious	-0.98	0.33	[-2.07,1.72]	-5.88	0.00	[-5.00,-2.45]	-4.96	0.00	[-4.72,-1.99]
depressed	-0.01	1.00	[-2.17,2.16]	-1.27	0.21	[-2.89,1.65]	-1.88	0.39	[-2.63,1.04]

Training and Competition Satisfaction	0.02	0.98	[-1.15,1.17]	4.70	0.00	[1.98,4.94]	3.54	0.00	[1.20,4.37]
accept	0.08	0.93	[-1.81,1.97]	3.59	0.00	[1.64,5.82]	2.72	0.01	[0.74,4.97]

As for the mindfulness group, there were significant differences in mindfulness, anxiety, depression, training, and Competition Satisfaction and acceptance variables (P< 0.01) between the pre-test and the post-test and the pre-test and the measurement three months after the end of the intervention; There were significant differences in depression, training, and Competition Satisfaction and acceptance variables (P 0.001); There were significant differences in depression, training, and Competition Satisfaction and acceptance variables (P <0.001) (see Table 4). Comparing the pre-test to the post-test, the pre-test to the measurement 3 months after the end of the intervention, and the post-test to the measurement 3 months after the end of the intervention, there was no significant difference in any variable for the control group.

Table 4

t-test results of paired samples within the group

variable	Front side vs. rear side			Front side vs. After 3 months of intervention			Posterior side vs. After 3 months of intervention		
	M Diff	t	df	M Diff	t	df	M Diff	t	df
Mindfulness group									
mindfulness	-12.30	-5.34**	24	-12.05	-5.95**	24	0.25	0.71	24
anxious	2.80	8.32**	24	2.64	7.15**	24	-0.16	-0.89	24
depressed	1.32	4.06**	24	0.96	3.87**	24	-0.36	-3.67**	24
Training and Competition Satisfaction	-3.24	-8.76**	24	-2.52	-4.60**	24	0.72	1.76**	24
accept	-4.11	-8.76**	24	-3.19	-6.51**	24	0.92	8.99**	24
control group									
mindfulness	-0.38	-0.73	23	-0.04	-0.10	23	0.33	1.36	23
anxious	-0.25	-1.81	23	-0.04	-0.27	23	0.21	1.42	23
depressed	0.21	2.01	23	0.17	1.70	23	-0.04	-0.44	23
Training and Competition Satisfaction	0.21	1.10	23	0.25	2.02	23	0.04	0.27	23
accept	-0.45	-2.06	23	-0.42	-1.99	23	0.04	0.37	23

M diff: mean difference; DF: degree of freedom* P < 0.05, * * P < 0.01 (two tailed test)

This study examines the effects of mindfulness training on the mindfulness capacity, acceptance ability, and mental health of college-level badminton athletes. Compared to the control group, mindfulness-trained badminton players had significant differences in mindfulness, anxiety, depression, training, and competition Satisfaction and acceptance

between the pre-test and the post-test, and the measurement three months after the end of the intervention. Mindfulness training has been demonstrated to improve the mindfulness skills of college student-athletes, which is regarded as one of the approaches to enhance athletic performance. This study confirms this as well. However, the change in mindfulness level between the post-test and follow-up examination did not differ significantly. According to the descriptive statistical findings, the mindfulness score declined from 122.41 to 122.16, indicating that the level of mindfulness has not increased dramatically throughout the three-month follow-up period. Previous research suggests this is likely due to practitioners who did not adhere to mindfulness during the follow-up phase.

Additionally, it could be due to the competition. During the intervention's follow-up period, collegiate athletes participated in team tests in preparation for the National Games. College student-athletes may not have sufficient time to practice mindfulness due to the lengthy distribution of competition time around the team. The findings of this study also indicate the significance of behavior adherence, behavior commitment, and spontaneous training following mindfulness intervention.

The findings of this study indicated that, in comparison to the control group, there were significant differences in anxiety variables between the college student-athletes who received mindfulness intervention in the pre-test and post-test, as well as between the pre-test and the measurement three months after the conclusion of the intervention. There was no significant difference between the post-test and the measurement three months after the intervention; the anxiety score changed from 13.4 to 13.6, indicating that the anxiety level of college student-athletes remained relatively stable but did not continue to decline during the three-month follow-up period. Previous research has demonstrated that mindfulness intervention affects the anxiety of college athletes. This study provides evidence that mindfulness training helps lessen the anxiety levels of college athletes. However, unlike prior investigations, this study's continuing effect during the follow-up period has not been enhanced.

4.3 Application of music therapy in college student athletes' mental health education

In general, the application of music therapy in the mental health education of college student-athletes should emphasize supportive music therapy, re-education music therapy, and reconstruction music therapy. Through different music diagnosis and treatment intervention strategies, music should be used to strengthen the relationship with patients. The emotional, psychological, and cognitive perception induced by music interaction should be utilized to educate college student-athletes about mental health. Hoch et al. (2019).

4.4 Application of music therapy in support

Positive music therapy encourages attitude, behavior, and skill changes. Typically, this music therapy targets sub-health groups of collegiate athletes and those with emotional illnesses. The treatment consists of two phases: (1) According to the needs of college student-athletes to prevent psychological diseases, the

college student-athletes are induced to use the music health care mode to maintain physical and mental health and help them form a sunny and cheerful mood; (2) The interaction of music is used to form psychological perception, assist college student-athletes with psychological barriers such as anxiety, tension, depression, and fear to vent their negative emotions and assist them in regaining a positive attitude; (Baykse, Yazici, & Elik, 2021). The patient's language expression skills, emotion expression skills, sense of balance, behavior adaptation skills, and social communication skills can be enhanced by allowing the patient to participate in structured collective singing, instrumental performance, collectivized dancing, and collective instrumental performance.

4.5 Improve the infrastructure of music therapy

In applying music therapy to the mental health education of college student-athletes, a solid music medical infrastructure is not only essential for ensuring the application of music therapy but also an essential guarantee for enhancing the application effect of music therapy. In constructing mental health counseling rooms in colleges and universities, it is essential to designate a separate space for music therapy (Cakiroglu, 2021). In general, the music therapy room must have an atmosphere that encourages students' physical and mental relaxation. Under this criteria, the music therapy room's acoustics and illumination must create a warm ambiance. In addition, it is necessary to place handicrafts, green plants, etc., in the music therapy room to create a more comfortable psychological environment for the college student-athletes, thereby ensuring effective communication between college student-athletes and mental health educators and the full expression of the music therapy's function. Colleges and universities can select whether to construct group or individual music therapy rooms based on their particular material circumstances (Grilli Cadieux, Gemme, & Dupuis, 2021). The individual music therapy room and the group music therapy room must both exhibit professionalism and humanity. Specialization is reflected in the need for specialized equipment in the music therapy room, such as test equipment and a psychological scale frequently used for mental health assessment and guidance, a multimedia workbench and mixer for playing music, a physiological index sensor for determining the effect of music therapy, and other feedback software and hardware. This specialized equipment can be humanized and represent the psychological experience of college student-athletes as a crucial basis for developing the atmosphere of the music treatment room and positioning the items. The private music therapy room may accommodate two sofas for kids and mental health educators. In determining the distance between sofas, it is necessary not only to ensure that educators can observe students' body movements and facial expressions effectively but also to consider the social safety distance of students to prevent students' anxiety or resistance to educators and music therapy.

4.6 Construction of music therapy talent team

An outstanding music therapy talent team is

a necessary condition for enhancing the application effect of music therapy, as well as an essential assurance for promoting the integration of music therapy into the mental health education of college student-athletes. Therefore, colleges and institutions must focus on developing music therapy skills to supply the necessary human resources for the efficient implementation of music therapy. In particular, the penetration of music therapy in the mental health education of college student-athletes and the deployment of music therapy has raised the bar for the professional competence of the music therapy talent team. As the foundation of music therapy, it must first be backed by extensive psychology and music-theoretical expertise. Among these, the mastery of psychological information by the major body of music therapy is a crucial foundation for accurate judgment and evaluation of the mental health problems of college student-athletes. The core of music therapy must immediately learn the fundamental theory and techniques of psychological counseling. Simultaneously, the implementation subject of music therapy must not only fully comprehend the relationship between psychological guidance and music and master the theoretical knowledge of music therapy but must also possess certain music skills to enhance the relevance of the music therapy implementation process. Second, as the main body of music therapy, it must have a high level of professional ethics; that is, it must be willing to assist college student-athletes in resolving psychological issues, and constantly improve its professional level and innovation capacity based on this commitment, to promote the growth of sports mobilization. In addition, the subject of psychotherapy implementation should have a tranquil mind and a charming personality to communicate with pupils more effectively and increase their contagiousness. From the standpoint of talent team building, colleges and universities can direct mental health educators to study music therapy and get related certifications by enhancing the incentive mechanism, hence expanding the mental health education abilities mastered by mental health educators. In this process, colleges and universities must also provide mental health educators with diverse training and continuing education options to foster the professional development of mental health education practitioners. In addition, colleges and universities must carry out talent recruitment, introduce outstanding music therapy professionals, and share the application experience of music therapy by guiding educators to communicate to aid in improving mental health educators' application ability of music therapy.

5.Conclusion

This study has a randomized controlled experimental design, and interventions are administered to 49 badminton players. Before the intervention, all individuals were randomly assigned into two groups: mindfulness and control groups. The mindfulness group underwent a 7-week MAIC program, whereas the control group of collegiate athletes received no intervention. Mindfulness training can increase the level of mindfulness, acceptance, and pleasure in badminton players and lower their anxiety and depression, as demonstrated by the

results. This study is primarily concerned with the enhancement of badminton through maic dynamic II training, which provided early support for the personnel's mental health.

In conclusion, the application of music therapy in the mental health education of college student-athletes is of great importance for supporting the diversification of mental health education techniques and enhancing the mental health level of college students. Therefore, colleges and universities must strengthen the publicity work and infrastructure development of music therapy to lay a solid foundation for the effective development of music therapy by enhancing the knowledge and awareness of teachers and students regarding music therapy. The implementation subject of music therapy must define the application process and continuously develop its professional quality and professional ethics to enhance the application effect of music therapy.

6.Theoretical and practical implications

Theoretically, this study has contributed to the body of knowledge because previous research failed to evaluate the effect of music therapy on the learning and mental health of college athletes. In this regard, the study has contributed to the body of knowledge by highlighting the impact of music therapy on the mental health of athletes. This study's original contribution to the corpus of literature significantly advances our understanding of the mental health of athletes. In addition, this study has enhanced the model of the mental health of athletes by examining the literature and incorporating the novel aspect of music theory. Thus, future studies will benefit from this material to comprehend the connection between music therapy and the mental health of athletes. This innovative contribution is based on the study's findings.

Furthermore, this research has important implications for the progress and improvement of the mental health of college athletes at various institutions. Athletes with good mental health can perform well; therefore, it is the role of the college administration to assist these athletes in enhancing their comprehension and learning, which could be advantageous to their performance. Athletes can benefit from music therapy to improve their mental health and should be motivated to increase their mental health knowledge. Certainly, the school administration and the parents of college athletes should play an active part in facilitating the athletes' enhanced performance and learning. Athletes with improved mental health can perform effectively; therefore, the government should prioritize the development of athletes and encourage and assist them in enhancing their performance. Furthermore, athletes' teamwork has a substantial effect on their mental health. Thus, music therapy and teamwork assignments might improve the mental health of sportsmen.

7.Future directions

The purpose of this study has been met because music therapy significantly affects the mental health education of college student-athletes. However, several future directions are suggested by this research that would assist researchers in improving their performance in the future.

Future research should begin by examining improved nutrition's effect on athletes' mental and physical health. Future studies may also investigate the impact of coach behavior on the mental health of athletes. Thirdly, future studies should establish the effect of mental health literacy on the cognitive improvement of collegiate athletes. Thus, these gaps would be filled, and the body of knowledge would be expanded.

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