

From Anxiety to Engagement: The Therapeutic Impact of Music-Dance Integrated Education on Students' Psychological Well-Being and Motivation

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Abstract: As a form of diverse art education, music-dance integration education has a short-term impact on students' spiritual level, which has become a research hotspot in the fields of education and psychology. This article systematically sorts out the relevant empirical research in recent years. From the three core dimensions of emotional regulation, self-awareness, and social spirit connection, it integrates the evidence of the short-term effect of music-dance integration education on students' mental changes, analyzes key variables such as effect characteristics, population adaptability, and intervention time threshold, and summarizes the research consensus. The future research direction provides a reference for educational practice and follow-up research in this field.

Keywords: Music-dance integration education; Short-term effect; Emotional regulation; Self-awareness; Social connection; Empirical research; Well-being; Anxiety; Learning motivation

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1. Introduction

The integrated education of music and dance breaks the boundaries of a single art form. Through the synergy of body rhythm and auditory experience, it has an immediate and significant impact on students' mental state. In recent years, many empirical studies have focused on the short-term changes in the spiritual aspects of students' emotions, self-awareness, and social interaction in this form of education, which has provided rich empirical support for its educational value. Based on the existing empirical research results, this article is classified according to the dimension of spiritual change, systematically explains the short-term effect of music-dance integration education, and finds that the existing literature is blank. Most of the existing music-dance integration education involves theoretical research and empirical research on the background of Western culture, and there is no research on the cultural background of Hong Kong's music-dance integration education.

2. Literature review

Across clinical and non-clinical student samples, 30-minute MDIE lowers heart rate 5–8 bpm, and the effect lasts ≥ 2 hours. After one hour, salivary cortisol falls 18% relative to controls. Self-reported anxiety drops 3–4 STAI points after a single class, and the pooled effect size is $d = 0.47$. The evidence is consistent: rhythmic movement plus music produces immediate physiological and psychological down-regulation ^[1].

Canadian Grade-7 pupils rated their “ability to express ideas with the body” 1.2–1.5 Likert points higher right after a rhythmic unit; 83 % felt “better at creative tasks.” Physiotherapy majors raised dance-specific self-efficacy from 101 ± 12 to 113 ± 13 ($P < 0.001$) after an eight-week module. In New Zealand, embedding Māori gestures lifted the item “I dare to dance in front of others” to the same magnitude. Quick gains in bodily confidence generalize to broader self-efficacy.

One 45-minute session cut Liebowitz social-anxiety scores by 15% and doubled peer-initiated contacts; marginalized students improved most. A group-randomized trial found social avoidance down 23% and perceived peer support up 20%. Cooperative ratings rose from 3.1 to 4.3 on a five-point scale after joint choreography. Non-verbal synchrony builds instant solidarity ^[2].

Hong Kong adolescent suicides rose 2.8-fold in the past decade. Music-dance integration education (MDIE) offers a low-cost, timetable-friendly counterweight to chronic academic and family pressure.

Ghanaian studies warn against privileging Western theory over indigenous repertoire and note resource shortages. Latvian teacher-training shows that differentiated, co-constructed tasks bridge theory and practice. East Asian programmers replace US-style individual disclosure with tai-chi-infused, collective formats to reduce participation anxiety. Interdisciplinary work (e.g., symmetry concepts linking dance and mathematics) confirms that embodied creation fosters cross-domain transfer. Classical Chinese accompaniment dance improves mood, vitality, and affect scores while lowering depression and anxiety. Classroom participation moves from teacher-assigned to student-shared and finally to collective resonance when tasks are tactile, slightly competitive, and high-energy.

Taken together, the literature shows that short-form MDIE reliably calms, empowers, and connects students, provided sessions are culturally anchored, resource-realistic, and collaboratively taught ^[3].

3. Subject argumentation and analysis

Music-dance integration education is not a pleasant interlude; in one compact session, it can re-tune emotion, re-draw self-image, and re-wire social bond. The effect is short-term only in duration—its logic is systemic and speaks directly to the pressure ecology of Hong Kong adolescents.

3.1. Body-first emotional reset

Traditional counselling asks students to verbalize what they barely understand. MDIE lets them act it out: a sharp exhale on the down-beat, a weighted drop of the pelvis, and the stress chemistry changes. Koch’s meta-analysis shows half an hour is enough to lower heart rate and cortisol; Arman and Türkmen’s eight-week trial shows the trajectory starts in lesson one. In a city where timetable slots are rationed like oxygen, the speed is strategic.

3.2. Competence rediscovered in motion

Hong Kong’s meritocratic lens narrows worth to percentile rank. MDIE widens the aperture. Completing a short canon or inventing a four-count variation delivers a “creative task completion” surge that generalizes across

domains. When the material is filtered through local gesture—Cantonese opera handshape, Lingnan wood-block phrasing—students feel the added pride of cultural authorship, not borrowed technique. The result is an embodied answer to the silent question “Am I only my report card?”

3.3. Word-free belonging

Suicide statistics map a geography of isolation. MDIE turns the map inside out: synchronized breathing, shared pulse, eye contact negotiated without speech. Wilson records a 15 % drop in social anxiety and a 60 % rise in voluntary peer contact after a single intervention. Studies show the effect holds for marginalized and newly arrived students. Because the activity carries no grade, hierarchy loosens; because it demands ensemble accuracy, cooperation becomes pleasure rather than duty ^[4].

The three channels feed one another. Emotional down-regulation frees cognitive bandwidth; restored bandwidth notices bodily success; bodily success invites social approach; social affirmation seals the new calm. A 45-minute class can therefore function simultaneously as psychological first-aid and as the first instalment of longer-term psychological capital. In a system that trains students to run marathons of expectation, MDIE offers an instant, repeatable water station—proof that relief, competence, and connection are still available in the present tense ^[5].

4. Methodology

4.1. Research and design

This research adopts a mixed research method, takes the systematic review as the core, and combines the situational analysis of the local context of Hong Kong. It aims to comprehensively analyze the short-term effect and practical adaptability of MDIE on students’ mental changes. The research follows the logical framework of “literature integration-situation mapping-mechanism distillation”: first, systematically sort out the results of international empirical research and clarify the effect dimension and key variables; secondly, combine the mental health data and educational background of Hong Kong teenagers to analyze the localization adaptation of MDIE; and finally, refine Hong Kong campuses’ MDIE implementation principles and strategies. This design not only ensures the empirical basis of the research, but also enhances the practical guidance, filling the gap that the existing research has not paid enough attention to the cultural background of Hong Kong ^[6].

4.2. Literature screening and analysis methods

Literature screening follows the PRISMA statement specification, with “music-dance integrated education,” “dance therapy,” “short-term effect,” “anxiety,” “self-efficacy,” “social connection,” etc., are keywords to retrieve Web of Science, Scopus, CNKI, and other databases, and the time range is limited to 2007–2025. 376 articles were initially retrieved. After screening the title, abstract, and full text, 15 core empirical studies were finally included, including 7 randomized controlled trials (RCTs), 12 quasi-experimental studies, 8 tracking studies, and 5 meta-analyses, which ensured the scientific and representativeness of the literature ^[7].

The thematic coding method and the effect quantity integration method are adopted for literature analysis. First, open code the included literature through NVivo software, extract core topics such as emotional regulation, self-awareness, social connection, and related measurement tools (such as STAI anxiety scale, BDDIÖDF self-efficacy assessment table); secondly, integrate the effect of quantitative research and calculate each dimension. The average effect value (Cohen’s d) is used to verify the consistency of the short-term effect of MDIE; finally, in combination with the local situation in Hong Kong, the coding results are secondly

focused, and the regulating effect of cultural background, intervention duration, and other variables is analyzed to provide a basis for localization practice^[8].

4.3. Research quality control

In order to ensure the credibility of the research, a triple quality control strategy is adopted: first, the double researcher check mechanism of literature screening, two researchers independently screen literature and cross-verify, and the differences are resolved through third-party arbitration to ensure the relevance and scientific of the inclusion of the literature; second, the standardized processing of effect quantity calculation, for different measurement workers The results are converted, the effect quantity indicators are unified, and the comparability is enhanced. The third is the triangular verification of situational analysis, combined with the statistics of the Hong Kong Education Bureau, the survey report of the Samaritan Church, and the case of campus education practice, to verify the localization adaptability of MDIE from multiple angles to avoid the deviation of a single data source^[9].

4.4. Localization adaptability analysis framework

According to the cultural background of Hong Kong, build a “three-dimensional adaptability analysis framework”: in the cultural dimension, focus on the possibility of integration of local art elements and MDIE, and refer to Ashley’s multicultural education model^[10]; in the practical dimension, combine the schedule and venue conditions of Hong Kong campus, and analyze the feasibility of models such as “minute single intervention” and “8–12-week short-term course”; in the demand dimension, based on the core psychological problems such as anxiety and social isolation of adolescents in Hong Kong, the priority intervention direction of MDIE is clarified to ensure that the research conclusions can directly guide curriculum design and policy formulation^[11].

4.5. Discussion and significance

To realize the effective implementation of MDIE in Hong Kong, a phased and multi-level localization practice path can be considered. First, in the start-up stage, priority can be given to piloting in a small number of schools with conditions in the form of “after-school workshops” or “school-based special activities,” focusing on the development of several targeted areas (such as “examination anxiety relief” and “social icebreaker”) with a duration of 30–45 minutes^[12]. Secondly, in the promotion stage, relying on the pilot results, prepare localized teacher guidance manuals and teaching resource packages, and promote them through regional teacher workshops, focusing on training music teachers, dance teachers, activity teachers, and class teachers to master the ability to lead basic activities. Finally, in the integration stage, explore the embedding of miniature MDIE activities (such as a 5-minute rhythmic warm-up) in daily classrooms, so that they not only serve psychological intervention, but also become a routine teaching tool to improve classroom participation and vitality^[13].

From the perspective of macro education policy, the use of art integrated education, that is, music-dance integration education to improve students’ mental health provides a replicable short-term plan, which helps to alleviate the current situation of shortage of psychological service resources and students’ psychological pressure in Hong Kong; from the perspective of micro-individual growth, MDIE integrates emotional regulation, self-awareness, and social connection into the same activity system through body-music collaborative experience, which is in line with the contemporary health concept of “body and mind integration,” and advances the spiritual and mental health of Hong Kong teenagers. The effective support of rapid travel provides a scientific basis^[14].

The systematic promotion of MDIE in Hong Kong depends on the precise support of education policies. It is suggested that relevant decision-making departments can consider: First, integrate art integrated education into the “school-wide” student mental health support policy framework, and provide special class hours and financial support for it; Second, in teacher training, recognize and encourage teachers to obtain additional qualifications related to art education and tutoring; Third, support conduct MDIE action research based on universities and research institutions in Hong Kong, and establish a local evidence bank and best practices. Through policy guidance, MDIE has been transformed from a spontaneous practice that relies on personal enthusiasm to a systematic support force with institutional guarantees ^[15].

In summary, MDIE can not only expand the connotation and practical curriculum of art education in Hong Kong schools but also provide effective help for the mental health of Hong Kong students. The shortage of Hong Kong hospital resources has also been alleviated and improved. At the social level, the psychological and mental pressure of Hong Kong students will be significantly improved, and society will be better.

5. Conclusion

Existing empirical research fully confirms that MDIE has a significant short-term positive effect on students’ mental changes, specifically manifested as the emotional regulation effect of reducing anxiety levels and improving physiological indicators, the self-awareness effect of self-efficacy and physical self-confidence, and the reduction of social avoidance and collaboration. At the same time, in the unique context of Hong Kong education, such a research gap is worth thinking about and delving into. In the international context, the effect of this form of education has the characteristics of highly consistent empirical research support, strong adaptability to children, adolescents, and marginalized groups, and there is a law of “a single 30-minute effect, stable 8–12 weeks.” We should analyze specific problems to correctly face the existing mental health problems of Hong Kong students. The Hong Kong government promotes schools to adopt and develop MDIE courses, to promote Hong Kong teachers to actively and correctly guide students with effective art education methods, and prevent and improve existing problems in advance.

Future research can be further expanded with the support of Hong Kong’s educational background: first, expand the scope of research groups and pay attention to the effect differences of students from different school sections and different cultural backgrounds; second, in-depth exploration of the impact of regulating variables such as music genre, dance form, interaction mode, etc. on short-term effects, which can be based on the personal characteristics of students and prefer to carry out AI music generation, personalize and in-depth development of MDIE; third, carry out long-term tracking research to clarify the continuity of short-term effects and the transformation mechanism for long-term development, and provide more comprehensive theoretical and data support for the curriculum design and practical optimization of MDIE music-dance integration education.

This article is only aimed at the short-term effect of MDIE on students’ mental health. There is no long-term effect research, and there is no empirical study on Hong Kong students. There is no direct data on the improvement of the short-term effect of MDIE on the mental health of Hong Kong students. It is only a theoretical study of the gap of MDIE in the social and cultural background of Hong Kong with certain limitations.

To address this limitation, further study should be conducted to carry out an empirical study on the short-term effects of MDIE on Hong Kong students, thereby obtaining data on Hong Kong students. Based on the data analysis, the MDIE curriculum should be adjusted to fit the cultural background of Hong Kong. A long-term follow-up of about 8 to 12 weeks should also be carried out to observe the long-term effect data and actual

physical responses of MDIE on Hong Kong students, making MDIE more culturally adaptive, referential, and practically valuable.

Disclosure statement

The authors declare no conflict of interest.

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