

Tai Chi and Laughter Therapy: Emerging Complementary Strategies for Adolescent Mental Health Promotion

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ABSTRACT

Background:

Adolescent mental health disorders represent a growing public health challenge, with anxiety, stress, and low self-esteem affecting emotional development, academic performance, social relationships, and quality of life. There is an increasing need for safe, affordable, and culturally acceptable non-pharmacological interventions that can be integrated into school and community health programmes.

Objectives:

To review the existing evidence regarding the effectiveness of Tai Chi and laughter therapy in improving anxiety, self-esteem, and psychological well-being among adolescents and to explore their potential application in community-based mental health promotion.

Methodology:

A narrative review was conducted using electronic databases including PubMed/MEDLINE, Scopus, Web of Science, Google Scholar, and the Cochrane Library. Studies published in English evaluating Tai Chi or laughter therapy among adolescents or young populations were identified. Randomized controlled trials, observational studies, systematic reviews, and meta-analyses were included. Relevant information regarding intervention characteristics, psychological outcomes, effectiveness, and limitations was extracted and synthesized narratively.

Results:

The available evidence indicates that Tai Chi may improve emotional regulation, reduce anxiety symptoms, and enhance psychological well-being through mechanisms involving mindfulness, autonomic regulation, stress reduction, and increased physical activity. Laughter therapy has demonstrated beneficial effects on mood, stress reduction, emotional expression, self-esteem, and social connectedness.

Conclusion:

Tai Chi and laughter therapy appear to be promising complementary approaches for adolescent mental health promotion. Their low cost, safety, and feasibility support their potential integration into school and community-based health programmes. Further well-designed research is required to establish their effectiveness and long-term public health impact.

Keywords: Adolescent; Anxiety; Community Health; Laughter Therapy; Mental Health Promotion; Self-esteem; Tai Chi.

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Introduction

Adolescence is a critical developmental period characterized by rapid biological, psychological, emotional, and social changes. Mental health during this stage significantly influences future well-being, academic achievement, interpersonal relationships, and social functioning. Anxiety disorders, depressive symptoms, emotional distress, and reduced self-esteem are among the most common psychological concerns affecting adolescents worldwide.¹⁻³ Poor adolescent mental health contributes substantially to disease burden and may negatively

influence educational attainment, social participation, and adult health outcomes.^{1,2}

Despite the increasing recognition of adolescent mental health needs, access to professional psychological services remains inadequate, particularly in low- and middle-income countries. Limited availability of trained professionals, stigma associated with mental health problems, and socioeconomic barriers restrict timely access to care. Therefore, preventive and promotive strategies that can be implemented through schools and community settings are essential components of adolescent health programmes.^{4,5}

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Mind-body interventions have gained attention as supportive approaches for improving psychological health. Tai Chi, a traditional Chinese exercise involving slow coordinated movements, controlled breathing, and focused attention, combines physical activity with mindfulness-based practices. Existing research suggests that Tai Chi may influence psychological outcomes through reduction of stress responses, improvement in emotional regulation, enhanced self-awareness, and promotion of relaxation.^{6–8}

Laughter therapy, including laughter yoga and structured humour-based activities, is another emerging psychosocial intervention. It aims to promote positive emotions, reduce psychological stress, and enhance interpersonal bonding through voluntary laughter exercises and group participation. Studies suggest that laughter-based interventions may improve mood, reduce anxiety, and support emotional well-being.^{9–12}

From a community medicine perspective, interventions that are inexpensive, safe, culturally adaptable, and feasible for large-scale implementation are valuable in adolescent mental health promotion. School-based delivery of Tai Chi and laughter therapy may complement existing counselling services, life skills education, and adolescent-friendly health initiatives. However, evidence regarding their effectiveness specifically among adolescents remains fragmented.

Therefore, this narrative review aims to summarize current evidence regarding the role of Tai Chi and laughter therapy in improving anxiety, self-esteem, and psychological well-being among adolescents and discuss their relevance for community-based mental health promotion.

METHODOLOGY

Literature Search Strategy

A narrative review was conducted to synthesize available evidence regarding Tai Chi and laughter therapy as interventions for adolescent mental health promotion. Literature searches were performed using electronic databases including PubMed/MEDLINE, Scopus, Web of Science, Google Scholar, and the Cochrane Library.

The search strategy incorporated controlled vocabulary and free-text keywords. The following terms were used individually and in combination: “Tai Chi,” “Tai Ji,” “mind-body exercise,” “laughter therapy,” “laughter yoga,” “adolescent,” “teenager,” “youth,” “anxiety,” “self-esteem,” “psychological well-being,” “mental health,” and “community health.”

Reference lists of selected articles and relevant reviews were also screened to identify additional eligible studies.

Eligibility Criteria

Studies were included when they fulfilled the following criteria:

- Evaluated Tai Chi, laughter therapy, or related interventions.
- Included adolescents aged 10–19 years or populations involving adolescent participants.

- Reported outcomes related to anxiety, stress, depression, self-esteem, emotional well-being, or quality of life.
- Included randomized controlled trials, quasi-experimental studies, observational studies, systematic reviews, or meta-analyses.
- Published in peer-reviewed journals in English.

Studies were excluded if they were conference abstracts, editorials, case reports, dissertations, duplicate publications, or studies involving only adults without relevance to adolescents.

Data Extraction and Synthesis

Information regarding study characteristics, participant population, intervention type, duration, outcome measures, major findings, and limitations was extracted. Due to heterogeneity in study designs, intervention approaches, and assessment methods, quantitative meta-analysis was not performed. Findings were synthesized narratively according to intervention type, psychological outcomes, mechanisms of action, and implications for community health practice.

RESULTS

Effects Of Tai Chi On Adolescent Mental Health

Tai Chi is a holistic mind-body exercise involving slow movements, controlled breathing, meditation, and concentration. Available evidence indicates that Tai Chi may contribute to reductions in anxiety symptoms, psychological stress, and depressive symptoms while improving emotional regulation and overall well-being.^{6–8}

The psychological benefits of Tai Chi may be attributed to multiple mechanisms, including increased mindfulness, improved autonomic nervous system balance, reduction in physiological stress responses, enhanced physical activity levels, and improved self-awareness.^{6,7} However, most available studies involve adults or mixed-age populations, and adolescent-specific evidence remains limited.

Effects Of Laughter Therapy On Psychological Well-Being
Laughter therapy includes laughter yoga, humour-based activities, and structured group laughter exercises designed to promote positive emotions and social interaction. Evidence suggests that laughter-based interventions may reduce stress, anxiety, and depressive symptoms while improving mood, emotional expression, and interpersonal relationships.^{9–12}

The proposed mechanisms include increased endorphin release, reduction of cortisol levels, activation of positive emotional pathways, and strengthening of social connections. However, differences in intervention duration, assessment tools, and study populations limit direct comparison among studies.

DISCUSSION

The findings of this narrative review suggest that Tai Chi and laughter therapy may serve as useful complementary

approaches for promoting adolescent mental health. Both interventions demonstrate advantages including low cost, minimal infrastructure requirements, ease of implementation, and favourable safety profiles.

Tai Chi may support adolescent psychological health by combining physical movement with mindfulness-based attention. Similar mind-body approaches have been associated with improved emotional regulation and stress management.⁶⁻⁸ Laughter therapy provides an opportunity to enhance positive emotions and social connectedness, which are important protective factors against adolescent psychological distress.⁹⁻¹²

From a community medicine perspective, these interventions have potential applications within school health programmes, adolescent-friendly health services, and community mental health initiatives. Teachers, health educators, and community health workers may be trained to facilitate structured sessions under appropriate supervision. However, current evidence requires cautious interpretation. Many available studies have methodological limitations, including small sample sizes, short intervention periods, inconsistent outcome measures, and inadequate long-term follow-up. Furthermore, adolescent-specific randomized controlled trials remain limited, particularly in low- and middle-income countries, including India.

Future research should focus on large multicentre trials, standardized intervention protocols, cost-effectiveness evaluation, long-term outcomes, and implementation research within school and community settings. Strengthening evidence from diverse cultural contexts will assist policymakers in determining the role of these interventions in adolescent mental health programmes.

CONCLUSION

Tai Chi and laughter therapy demonstrate potential as supportive interventions for improving anxiety, self-esteem, and psychological well-being among adolescents. Their affordability, safety, and feasibility make them suitable candidates for integration into school and community-based mental health promotion initiatives. However, stronger adolescent-specific evidence through well-designed clinical trials is required before widespread implementation.

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REFERENCES

1. World Health Organization. Adolescent mental health [Internet]. Geneva: World Health Organization; 2024 [cited July 17, 2026]. Available from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>

2. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: A Lancet commission on adolescent health and wellbeing. *Lancet*. 2016;387(10036):2423-2478.
3. Rosenberg M. *Society and the Adolescent Self-Image*. Rev ed. Princeton (NJ): Princeton University Press; 1989.
4. World Health Organization. Helping adolescents thrive toolkit: Strategies to promote and protect adolescent mental health and reduce self-harm and other risk behaviours [Internet]. Geneva: World Health Organization; 2023. Available from: <https://www.who.int/publications/i/item/9789240078068>
5. Ministry of Health and Family Welfare, Government of India. Rashtriya Kishor Swasthya Karyakram (RKSK): Strategy handbook. New Delhi: Ministry of Health and Family Welfare; 2014.
6. Kong J, Wilson G, Park J, Pereira K, Walpole C, Yeung A. Treating depression with Tai Chi: State of the art and future perspectives. *Front Psychiatry*. 2019;10:237.
7. Zou L, Yeung A, Quan X, Hui SSC, Hu X, Chan JSM, et al. Mindfulness-based Baduanjin exercise for depression and anxiety: A systematic review and meta-analysis. *Int J Environ Res Public Health*. 2018;15(2):321.
8. Wayne PM, Kaptchuk TJ. Challenges inherent to Tai Chi research: Part I—Tai Chi as a complex multicomponent intervention. *J Altern Complement Med*. 2008;14(1):95-102.
9. Wang C, Schmid CH, Rones R, Kalish R, Vinh J, Goldenberg DL, et al. A randomized trial of Tai Chi for fibromyalgia. *N Engl J Med*. 2010;363(8):743-754.
10. Bennett MP, Lengacher C. Humor and laughter may influence health: III. Laughter and health outcomes. *Evid Based Complement Alternat Med*. 2009;6(2):159-164.
11. Mora-Ripoll R. The therapeutic value of laughter in medicine. *Altern Ther Health Med*. 2010;16(6):56-64.
12. Yim J. Therapeutic benefits of laughter in mental health: A theoretical review. *Tohoku J Exp Med*. 2016;239(3):243-249.
13. Shahidi M, Mojtahed A, Modabbernia A, Mojtahed M, Shafiabady A, Delavar A, et al. Laughter yoga versus group exercise program in elderly depressed women: A randomized controlled trial. *Int J Geriatr Psychiatry*. 2011;26(3):322-327.
14. National Institute of Mental Health. Children and adolescent mental health [Internet]. Bethesda (MD): National Institute of Mental Health; 2024 [cited July 17, 2026]. Available from: <https://www.nimh.nih.gov/health/topics/child-and-adolescent-mental-health>
15. World Health Organization. School health services guideline: An operational guide for school health

programmes [Internet]. Geneva: World Health Organization; 2021 [cited July 17, 2026]. Available from: <https://www.who.int/publications/i/item/9789240029398>