

Preliminary Exploration into the Practice and Mechanism of Vocal Exercise in Promoting Mental Health

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Abstract: During the period of social transformation, the psychological pressure on the general public remains high, and non-pharmacological and easily accessible psychological adjustment methods are important supplementary forms of the social psychological service system. Vocal practice focuses on respiratory regulation, vocal training, and emotional expression, with both physiological exercise value and spiritual sustenance function. It is a daily psychological health maintenance method suitable for the entire population. This article relies on authoritative public health data and recognized physiological laws to sort out the core practical forms of vocal exercises that can be carried out by the public, clarify their actual effectiveness in relieving stress and regulating emotions, analyze their mechanisms from the dimensions of physiological-nerve regulation, psychological cognition, and social interaction, and construct a scientifically feasible practical plan that is suitable for the public. Research has shown that regular and moderate vocal practice can effectively improve negative emotions, regulate stress reactions, and enhance psychological adaptation levels. It has high promotional value in grassroots mental health promotion work and provides a low-cost, life-oriented implementation path for self-management of mental health for the whole population.

Keywords: Vocal Practice, Mental Health, Emotional Regulation, Physiological Regulation, Practical Application.

1. Introduction

At present, China's national mental health construction is steadily advancing, and the coverage and accessibility of psychological services continue to improve. However, due to factors such as accelerated pace of life and intensified social competition, emotional stress problems among different groups are still prominent. According to the "Report on the Development of National Mental Health in China (2023-2024)", the detection rate of anxiety in the adult population is about 20.5%, and the detection rate of depression in the adolescent population is 24.6%. The occupational pressure in the workplace and the problems of life adjustment difficulties and social isolation in the middle-aged and elderly population all lead to varying degrees of emotional regulation and psychological counseling needs. Traditional professional psychological intervention resources are mostly concentrated in urban medical institutions, which not only have high popularization costs, but also have significant differences in public acceptance, making it difficult to meet the daily psychological adjustment needs of grassroots people [1]. Therefore, non-medical psychological adjustment methods that are adapted to daily life have become an important exploration direction for grassroots psychological health services, gradually becoming industry consensus and the actual needs of the public. Vocal practice is not exclusive training for professional artistic performance, but a mass embodied psychological activity based on breath control, sound resonance, and melody expression. It does not require professional equipment and skill foundation, and has natural practical advantages in relaxing physical tension, relieving negative emotions, and building positive psychological states. At present, domestic research mainly focuses on the clinical application of art therapy, and there is still a lack of systematic sorting and localized practical exploration in terms of practical forms and internal mechanisms for daily vocal

exercises of the general population. This article is based on publicly available physiological and medical laws and grassroots social psychological service practice data, exploring the practical promotion effect and internal principles of vocal practice on mental health, clarifying scientific practice principles and implementation paths, and providing real and feasible practical references for the public's independent psychological adjustment and the expansion and improvement of grassroots psychological health services.

2. The Core Types of Vocal Practice and the Norms of Daily Practice for the General Public

Popular vocal practice is different from professional vocal training in that it does not aim at artistic expression, but rather focuses on psychological health adjustment exercises based on scientific vocalization and physical and mental coordination. It mainly includes four core contents: breathing training, vocal resonance, basic scales, and rhythm exercises [2]. This exercise form has a low entry threshold and does not require professional equipment assistance, making it suitable for people of all ages and physical conditions. Breathing training is the core foundation of popular vocal practice, with a focus on abdominal breathing, uniform breathing, and breath support. Through diaphragm movement, breath exchange is driven, which is different from chest breathing, which involves shallow and short breathing in daily life. The duration of a single practice should be controlled at 10-15 minutes, and long-term persistence can quickly form a stable breathing rhythm. Vocal resonance training focuses on the coordination of the three major cavities (head, oral, and thoracic). Through the extension of basic vowels and gradual progression of scales, sound control exercises are completed to avoid incorrect vocal techniques such as excessive force

and screaming that can easily cause vocal cord damage [3]. Melody and rhythm exercises mainly take the form of well-known simple songs and slow sight singing, emphasizing the linkage between auditory feedback and body muscle relaxation, without the need to pursue professional singing skills and artistic standards.

The basic principles of prioritizing relaxation, gradual progress, and long-term persistence should be followed when conducting public vocal exercises. Before practice, simple shoulder, neck, chest, and abdominal stretching movements can be done to allow the body to enter a relaxed state in advance. The core criterion for practice is physical and mental comfort. The practice environment should be kept quiet and ventilated, and the standing or sitting posture should also be naturally stretched as much as possible. The practical results of the domestic grassroots cultural and psychological service pilot show that a daily practice frequency of 15-30 minutes and about 5 times a week can gradually adapt the body and mind to the exercise rhythm, which is the basic frequency to achieve the effect of promoting mental health. Professional vocal training focuses on skill improvement and competitive performance, while popular vocal practice deliberately weakens the technicality and competitiveness, placing the continuity of practice and the pleasure of experience first. This feature greatly reduces the threshold for participation in practice, making vocal practice widely accessible and providing a solid practical foundation for the general public to maintain long-term psychological health through vocal practice.

3. The Real Improvement Effect of Vocal Exercise on Emotions and Psychological States

The practical effectiveness of vocal practice in emotional regulation and stress relief is supported by authoritative public health data and multi-scenario practical cases, rather than a simple summary of subjective experience. The social psychological service pilot program of the National Health Commission covers communities, campuses, and enterprises in multiple provinces and cities across the country. Public data shows that art adjustment projects, including vocal music and choir singing, can achieve a self-reported emotional distress relief rate of 35% to 40% among participants [4]. Among them, the improvement effect on short-term negative emotions such as daily tension, irritability, and low mood is particularly prominent. This data also confirms the feasibility of vocal practice as an auxiliary means of emotional intervention. From the feedback of grassroots practice, it can be seen that among the middle-aged and elderly population in the community, campus teenagers, and the working population, those who regularly participate in vocal exercises have significantly improved emotional stability, and their cognitive internal friction such as excessive thinking about stressful events has been significantly reduced. Physical problems such as shoulder and neck tightness and difficulty falling asleep caused by stress can also be alleviated to varying degrees.

The emotional improvement effect of vocal practice mainly relies on the dual path of respiratory regulation and emotional expression to gradually implement. The deep abdominal breathing used during the practice process is different from daily shallow and short breathing, which can quickly reduce muscle tension and inhibit sympathetic nervous system

overexcitation. This physiological regulation principle is highly compatible with the commonly used progressive relaxation therapy in clinical practice, and can help the body quickly get out of stress state. The melody adaptation and lyrics resonance during the vocalization process can shift the practitioner's attention from negative thoughts to the current sensory experience, reduce the repeated rumination of stressful events, and provide natural and safe guidance for suppressed emotions. Data from campus and community specific practice shows that fixed-frequency vocal exercises of about 30 minutes, 2-3 times a week can effectively reduce emotional fluctuations caused by academic competition among teenagers and trivial matters in adult life, significantly enhancing positive emotional experiences such as pleasure and peace. Compared to static relaxation methods such as sitting still and meditation, vocal practice combines initiative and emotional expression. Individuals can gain clear self-affirmation when completing simple practice goals, forming a positive feedback loop of "practice-relaxation-achievement" [5]. This positive experience can also be transferred to daily stress coping, further strengthening the long-term effectiveness of emotional regulation and providing sustained support for the stability of psychological state.

4. The Physiological Mechanism of Vocal Practice Promoting Mental Health

From the scientific perspective of human physiological regulation, the positive impact of vocal practice on mental health is rooted in recognized and experimentally verifiable physiological regulation laws. Its core mechanism revolves around three dimensions: respiratory neural regulation, somatic resonance relaxation, and neurotransmitter secretion regulation. This is also a consensus conclusion formed in the fields of physiology, medicine, and neuroscience [6]. The abdominal breathing combined with uniform vocalization used by practitioners in vocal practice can effectively stimulate the vagus nerve and activate the parasympathetic nervous system. Clinical physiological monitoring data have confirmed that standardized breathing and vocalization practice can increase human heart rate variability by 15%-20%, significantly reduce the body's basal stress level, and promote the body to gradually transition from a stressful and tense state to a relaxed physiological state.

The low-frequency resonance generated by vocal cord vibration during singing can have a gentle soothing effect on the muscles of the neck, shoulders, back, and chest cavity, effectively improving physical discomfort such as muscle stiffness and chest tightness caused by long-term psychological pressure accumulation. At the same time, it continuously transmits physiological signals of physical relaxation to the central nervous system, allowing psychological tension to dissipate. In addition, vocal practice is not a single physical movement, but requires the coordinated operation of multiple brain regions such as auditory perception, motor control, and memory retrieval. This process can actively promote the secretion of positive neurotransmitters such as endorphins and dopamine, thereby balancing the problem of neurotransmitter secretion disorders caused by long-term stress and regulating emotional states from a neurochemical perspective [7]. Empirical statistics on the general population in the field of public health in China

show that those who maintain regular vocal practice for a long time have an improvement rate of about 32% in their autonomic nervous system balance related indicators, and their respiratory efficiency and blood oxygen saturation can also be steadily improved, laying a physiological foundation for the stable maintenance of individual psychological states. For the middle-aged and elderly population, vocal practice is a comprehensive activity that combines mild physical movement and cognitive participation. Long-term participation can not only help maintain the activity of brain nerve function, delay the process of cognitive decline, but also reduce negative emotional problems such as anxiety and depression caused by cognitive decline, providing additional physiological protection for the psychological health of the middle-aged and elderly population.

5. The Value of Vocal Practice in Enhancing Psychological Resilience and Social Adaptation

Vocal practice is not only able to relieve immediate emotional pressure, but also gradually enhance individual psychological resilience and continuously improve social adaptability through long-term persistence. Its positive effects are mainly reflected in two core dimensions: individual self-awareness construction and group social interaction participation. At the individual level, the development of vocal practice requires continuous breath control, precise grasp of rhythm, and gradual achievement of phased practice goals. In the process of repeatedly breaking through their own practice difficulties and achieving established small goals, practitioners will gradually establish a sense of self-control over their own behavior, while gradually accumulating a stable sense of self-efficacy. This positive psychological experience gained from vocal practice can naturally be transferred to daily learning, work, and life scenarios, enabling individuals to have the ability to face setbacks and pressures more directly and cope with them, and their psychological resilience will steadily increase.

When vocal practice is conducted in collective forms such as choir singing and group singing, it can create a low-stress and relaxed social scene for participants. In the process of collaborative singing, participants form deep emotional resonance through a unified rhythm and synchronized melody, gradually narrowing the psychological distance between each other and effectively reducing loneliness and alleviating social isolation [8]. The practical data of the community mental health public welfare project shows that people who participate in collective vocal activities for a long time have an average decrease of about 28% in their self-evaluation scores of loneliness, an improvement in interpersonal trust, and a significant enhancement in their perception of social support in the surrounding area. Social support is the core protective factor for maintaining individual mental health, and this has formed a universal consensus in the field of mental health research [9]. Vocal practice itself has multiple attributes of skill acquisition, emotional expression, and group interaction. During the process of practicing, it can not only allow individuals' negative emotions to be reasonably and safely released, but also build stable interpersonal connections through interactive cooperation. The enhancement of individual psychological resilience and the improvement of social adaptability mutually reinforce and progress in tandem, making vocal practice a way to promote

mental health that combines personal psychological growth value and social value. In the development of grassroots mental health services, it has unique and irreplaceable application significance.

6. The Scientific Practice Path and Implementation Boundary for the Public

By combining the practical characteristics of physical and mental regulation in vocal practice with the practical experience of grassroots mental health services in China, a hierarchical, suitable, safe and easy-to-implement public vocal practice path can be constructed [10]. Individual independent practice is based on the core principles of fragmentation and low intensity. Office workers and students can use 5-10 minute fragmented time periods such as commuting, recess, and work to carry out introductory exercises such as basic abdominal breathing and simple vowel vocalization. There are no professional skill goals set to avoid new psychological pressure caused by deliberately pursuing singing effects, ensuring that the practice always revolves around physical and mental relaxation.

At the group level, offline platforms such as community party and mass service centers, school art education classes, and employee activity rooms of enterprises and institutions can be relied upon to offer public welfare basic guidance on vocal practice. Professional personnel with vocal foundation or mental health service qualifications can standardize the breathing patterns and vocal techniques of practitioners, timely correct improper behaviors such as shouting and excessive use of voice that damage the vocal cords, and reduce the risk of vocal cord damage, chest tightness, shortness of breath, and other physical discomfort from the source. Content adaptation for different groups of people needs to be tailored to their physical and mental characteristics: the youth group focuses on fun rhythm exercises and simple popular melody singing, which are in line with their interests and characteristics to enhance their willingness to actively participate; The middle-aged and elderly population selects soothing classic songs, mainly in the form of collective singing, to adapt to their physical and mental tolerance, while balancing relaxation and social needs [11]; For high-pressure workplace groups, design a 5-10 minute short-term combined breathing and vocalization exercise to adapt to their work rhythm and achieve rapid adjustment of workplace stress state. At the same time, it is necessary to clearly define the boundaries of practice: vocal practice is essentially a lifestyle tool for promoting mental health and assisting in the adjustment of emotional problems. It cannot replace professional psychological counseling, psychotherapy, and clinical medical intervention. People with moderate to severe anxiety, depression, and other mood disorders need to undergo professional evaluation and guidance from psychiatrists or psychological counselors to avoid delaying standardized intervention. At present, there is still a cognitive bias that "vocal practice is merely a professional artistic skill" in vocal practice at the social level. Popularizing scientific, simple, and safe vocal practice techniques for the whole population and developing simple practice manuals suitable for different groups are the core to promoting the transformation of vocal practice into a normalized psychological self-management tool for the public and supplementing the supply of grassroots

psychological services.

7. Conclusion

Vocal practice, with respiratory regulation, vocal training, and emotional expression as its core, is a life-oriented mental health promotion method that has scientific basis, low cost, and is easy to popularize. Its promotion effect and internal mechanism on mental health are supported by the pilot data of the National Health Commission, authoritative data of the National Mental Health Development Report, and recognized physiological and medical laws. Based on practical research data, regular and moderate vocal practice can effectively alleviate negative emotions such as anxiety and irritability, reduce physical stress levels, regulate autonomic nervous system function, and steadily improve individual psychological resilience and social adaptability through the gradually constructed self-efficacy during the practice process and the social support system formed by collective practice, truly achieving the coordinated enhancement of physiological and psychological conditions.

Vocal practice does not require professional equipment or high-level artistic skills. With relaxation, pleasure, and persistence as the core principles, it is suitable for all age groups to participate. It can be implemented through individual fragmented independent practice and collective public welfare activities in communities, campuses, and enterprises and institutions, becoming an important supplementary form of the existing social psychological service system. The pilot program of social psychological services by the National Health Commission and relevant research data on national mental health have clearly confirmed that such life-oriented art adjustment methods have high popularization value and practical significance in grassroots mental health promotion work. In the future, we need to rely on grassroots service platforms to further promote scientifically adapted vocal practice methods, clarify the applicable scenarios and practical boundaries for different groups of people, promote the deep integration of vocal practice with grassroots mental health services and public cultural services, and make it a normalized way to maintain the mental health of the whole nation. This will offer pragmatic and workable solutions for continuously improving the overall mental health level of the public and perfecting the grassroots social psychological service system.

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