

# Research on the Psychological Causes and Coping Strategies of Music Performance Anxiety among University Students

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**Abstract:** Music performance anxiety among university students is a common and complex psychological phenomenon, widely present in the learning and performance processes of music majors, and it significantly affects their stage performance and mental health. This anxiety manifests as emotional tension, physiological arousal, and behavioral dysregulation, and it is closely related to self-perception, sensitivity to social evaluation, and emotion regulation ability. Based on an analysis of the psychological mechanisms underlying music performance anxiety, this study focuses on its core causes, including vulnerable self-perception, excessive external evaluation pressure, and lack of performance experience and regulation strategies. The study proposes three intervention approaches: cognitive-restructuring-oriented psychological regulation, training mechanisms based on self-efficacy and sense of control, and the integration of guided music psychological interventions with group support strategies, aiming to provide theoretical support and practical guidance for university music education and psychological counseling.

**Keywords:** music performance anxiety; university students; self-efficacy; music psychological intervention

## Introduction

Music performance anxiety, as a highly specific situational anxiety response, is particularly pronounced among university music majors. University students are at a stage of rapid cognitive restructuring and transition in social role identity; when faced with frequent performance tasks and external evaluation mechanisms, they are highly susceptible to cognitive biases and emotional overload, which can lead to the generalization and consolidation of anxiety responses. Although research on performance anxiety has been extensively explored in the international field of music psychology, systematic analyses targeting university student populations remain limited, especially regarding the internal logic of anxiety generation mechanisms and the concrete construction of intervention pathways. This study follows a structural framework of “psychological causes—manifestation mechanisms—intervention pathways,” focusing on the essential characteristics of music performance anxiety among university students. By integrating cognitive-behavioral theory with music psychological intervention methods, the study systematically analyzes its core causes and constructs an intervention strategy model with feasibility and contextual adaptability, aiming to enrich the theoretical system of psychological counseling in university music education and to provide innovative support pathways and practical references for enhancing students’ psychological resilience and stage performance.

## 1. Psychological Representations and Manifestation Mechanisms of Music Performance Anxiety among University Students

### 1.1 Definition and Psychological Attributes of Music Performance Anxiety

Music Performance Anxiety (MPA) refers to the state of tension, worry, and physiological arousal experienced by individuals before or during a music performance, triggered by perceptions of uncertainty regarding their own performance and sensitivity to external evaluation. This phenomenon possesses complex interdisciplinary attributes in psychological research, encompassing not only anxiety disorder theories in clinical psychology but also mechanisms of stress response in specific

performance contexts as analyzed in educational psychology and performance psychology. MPA reflects not only doubts about actual ability but also excessive concern over potential damage to self-image, exhibiting distinct cognitive bias characteristics <sup>[1]</sup>.

From a theoretical perspective, the essence of MPA lies in self-evaluative anxiety under high cognitive load, typically accompanied by catastrophic thinking, negative automatic thoughts, and attentional shifts in performance contexts. Unlike general social anxiety, music performance anxiety is more readily triggered by specific performance situations, and its psychological mechanism emphasizes the dynamic balance between threat perception, self-awareness, and stress regulation resources. Individuals' hypothetical inferences about judgmental audiences can amplify emotional expectations regarding the consequences of failure, thereby reducing the fluency and sense of control in stage performance. MPA exhibits both state-like fluctuations and certain trait-like stability, manifesting as fixed stress response patterns developed across multiple performance experiences.

### ***1.2 Primary Manifestations of Music Performance Anxiety among University Students***

The university stage represents a critical period in which psychological maturation and stress adaptation are highly intertwined. Music majors are particularly prone to performance anxiety when facing high-demand performance tasks and frequent evaluative situations. This anxiety exhibits multidimensional interactive characteristics, encompassing emotional responses, cognitive impairments, physiological arousal, and behavioral dysregulation, forming a comprehensive psychological stress system <sup>[2]</sup>.

On the emotional dimension, students often experience fluctuations of anxiety, tension, shyness, and anticipatory fear of failure; cognitively, they may show attentional distraction, negative self-talk, and catastrophic expectations that interfere with task execution; physiologically, common responses include accelerated heart rate, rapid breathing, muscle tension, and vocal control difficulties; behaviorally, nonadaptive strategies such as situational avoidance, rhythm disruption, technical errors, pre-performance escape, or excessive practice may occur.

These manifestations not only affect students' stage performance and professional skill development but also tend to reduce self-efficacy and disturb professional identity. Some individuals may even enter a negative cycle of "anxiety—failure—consolidation—renewed anxiety," impeding sustained engagement in music learning and the healthy development of mental well-being.

### ***1.3 Multidimensional Constitutive Mechanisms of Music Performance Anxiety***

The generation of music performance anxiety exhibits highly multifaceted and dynamically interactive characteristics. Its causes cannot be explained by a single variable, but result from the joint influence of intrinsic psychological factors and external environmental factors. Current research generally employs the biopsychosocial model or the integrated stress-vulnerability model to explain its etiology <sup>[3]</sup>.

On the physiological dimension, individuals' neurotransmitter activity, cortisol levels, and autonomic nervous system reactivity affect the intensity of arousal and recovery speed in performance situations. Some students possess inherently high sympathetic nervous system excitability, making them more prone to pronounced physiological anxiety responses under high-pressure conditions. The psychological dimension constitutes the core of anxiety, particularly the cognitive appraisal system, where self-efficacy, self-awareness level, attribution style, and tolerance for failure decisively influence the intensity and duration of anxiety responses. Negative automatic thoughts and "mirror anxiety" during performance significantly amplify the immersive experience of anxiety. In addition, personality factors such as perfectionism, neurotic tendencies, and strong dependence on a sense of control play key roles in anxiety formation.

On the social-environmental dimension, prolonged exposure to high-expectation and highly competitive educational contexts leads students to attribute performance outcomes externally, thereby developing evaluation-sensitive anxiety traits. Parental comparative incentives, teachers' unidimensional evaluations of technical proficiency, and peer competition relationships may all amplify students' perception of failure consequences. Multiple mechanisms interact through feedback loops and coupling effects, ultimately constructing the complex psychological structure of music performance anxiety. Once this structure forms, it may solidify into a trait-like response pattern, affecting individuals' psychological stability and the integration of performance ability throughout their musical

development.

## **2. Analysis of Core Psychological Causes of Music Performance Anxiety among University Students**

### ***2.1 The Intrinsic Relationship between Self-Cognition and Anxiety Generation***

Self-cognition plays a central role in the generation of music performance anxiety, primarily reflected in the individual's cognitive appraisal system regarding personal ability, value, and performance outcomes. University students are at a critical stage of rapid self-concept reconstruction and social role adaptation, during which their self-cognitive structure often remains unstable, and dependence on external evaluation is relatively high, making them prone to externally oriented self-attribution patterns. In performance contexts, this cognitive tendency may induce the "audience-focus illusion" and "negative self-mapping," characterized by an overestimation of others' attention and an exaggerated perception of one's own performance, thereby intensifying the experience of anxiety [4].

Music performance anxiety is closely associated with negative self-cognition. Individuals with low self-esteem and an imbalanced achievement motivation structure are more likely to equate performance success or failure with personal worth. When confronted with stage variables beyond their full control, their emotion regulation system is prone to collapse. Research indicates that the lower the sense of self-efficacy, the more likely individuals are to engage in catastrophic anticipation before performance and experience attentional fragmentation and cognitive resource dispersion during performance. This anxiety does not stem from a lack of actual ability, but from an irrational magnification of the possibility of failure and the entrenched cognitive schema of "poor performance equals low ability."

Furthermore, excessive activation of self-monitoring constitutes a key node in the anxiety cycle. Self-monitoring refers to the capacity to regulate behavior to conform to external standards; however, in the performance context, excessively strong self-monitoring often redirects internal attention, causing individuals to focus excessively on technical precision and anticipated errors during performance, thereby preventing fluent and natural output. This state is referred to as a "monitoring-induced anxiety response," essentially arising from the cognitive control system's anticipatory assessment of performance loss of control, which further amplifies anxiety and creates a "attention-anxiety-attention depletion" feedback loop.

### ***2.2 Psychological Load of Social Evaluation Pressure and External Expectations***

Music performance, as an activity characterized by both high public visibility and evaluation orientation, has its anxiety-inducing intensity largely determined by the structure of the social evaluation mechanism. University music performances are often embedded within specific assessment contexts such as examinations, competitions, and recitals. In these settings, individuals must confront not only the direct reactions of the audience but also the value judgments imposed by authoritative figures such as teachers and adjudicators, resulting in psychological pressure far exceeding that experienced in routine practice.

Social evaluation pressure manifests in the psychological structure as cognitive load internalized from others' expectations. On one hand, students who are long exposed to highly competitive and standardized evaluation systems tend to regard "gaining recognition" as the sole goal, forming an externally dependent self-esteem structure; on the other hand, when external expectations are unmet, individuals are prone to complex emotional responses such as self-blame, shame, and fear of failure, thereby intensifying psychological aversion to performance tasks. Heightened sensitivity to being evaluated leads individuals to construct hypothetical failure scenarios even before performance, triggering anticipatory anxiety responses.

In learning environments with frequent group comparisons, the identity pressure arising from social comparison cannot be ignored. When individuals perceive their performance in a "zero-sum" relation to others, performance becomes not only a demonstration of personal ability but also a domain for evaluating self-worth. Once such cognitive structures solidify, they easily generate the "single performance equals decisive evaluation" thinking trap, increasing psychological burden and reducing the flexibility of emotion regulation. Research further indicates that in environments where teachers or parents exhibit excessive expectations or a tendency for negative feedback, students are more likely to

develop compulsive achievement motivation, resulting in performance anxiety that is both more frequent and longer-lasting <sup>[5]</sup>.

### ***2.3 Lack of Performance Experience and Deficiency of Emotion Regulation Strategies***

The lack of performance experience is a key factor triggering music performance anxiety. University students who have just entered the program, due to insufficient stage practice and stress exposure, find it difficult to establish stable performance routines and psychological coping mechanisms, making them overly sensitive to uncertainty and prone to maladaptive responses such as loss of composure, cognitive disruption, and impaired motor execution. Music performance, as a complex activity that highly integrates perception, motor skills, and emotion, demands advanced attention control and emotion regulation abilities, the development of which relies on systematic training and repeated adaptation processes.

In addition, many students have not yet mastered effective emotion regulation strategies. Common issues include insufficient emotional awareness, avoidance of negative experiences, and disconnection between physiological responses and cognitive appraisal, making them more likely to enter a maladaptive cycle of “tension—loss of control—avoidance” under anxiety. Scientific emotion regulation methods, such as cognitive reappraisal, mindfulness training, and breath control, can enhance self-regulatory capacity and improve psychological resilience and sense of control during performance.

A negative cycle exists between lack of experience and deficiency in regulation strategies: the former weakens regulatory capacity, while the latter limits the acquisition of new experiences. Breaking this cycle requires optimizing training mechanisms and reinforcing psychological construction, thereby enhancing students’ understanding of anxiety mechanisms and intervention efficacy, and effectively mitigating the occurrence and impact of music performance anxiety.

## **3. Construction of Coping Strategy Pathways for Music Performance Anxiety among University Students**

### ***3.1 Intrinsic Psychological Intervention Strategies Based on Cognitive Restructuring***

Cognitive restructuring, as a core technique of cognitive-behavioral intervention, demonstrates high adaptability and practical value in alleviating music performance anxiety among university students. This strategy emphasizes systematic curriculum design, such as offering specialized courses on “Psychological Adjustment for Music Performance,” which combine lectures, case analysis, and scenario simulations to help students identify and correct irrational beliefs about performance situations and reconstruct a rational appraisal system regarding personal ability and stage-related risks. Within the course, counterfactual thinking exercises and role-playing gradually guide students to accept the coexistence of uncertainty and controllability in performance contexts <sup>[6]</sup>.

During the intervention process, it is essential to enhance students’ awareness of typical cognitive biases and raise their recognition threshold for entrenched beliefs such as “judgmental audiences” and “failure equals shame,” while using scenario simulations or counterfactual thinking exercises to gradually promote acceptance of the coexistence of uncertainty and controllability in performance. The process of cognitive restructuring is not limited to correcting thought patterns but also emphasizes the transformation of linguistic representations, establishing positive attribution pathways for stage experiences through positive self-talk training. For example, transforming “I might make a mistake” into “Even if I make a mistake, I can still perform steadily” modulates the strength of cognitive beliefs at the semantic level, thereby alleviating anticipatory anxiety.

Systematic cognitive intervention should also integrate emotion regulation mechanisms and behavioral exposure techniques, forming a three-dimensional regulation model of “cognition—emotion—behavior.” Reinforcing internal feedback mechanisms for cognitive pattern shifts through repeated performance scenarios helps students internalize rational thinking into stable psychological response pathways, fundamentally reducing the likelihood of anxiety activation.

### ***3.2 Training Mechanisms to Enhance Self-Efficacy and Sense of Performance Control***

Self-efficacy, defined as an individual’s subjective judgment of their ability to accomplish specific

tasks, serves as a crucial psychological resource for regulating anxiety and enhancing self-control. In the context of music performance, high self-efficacy not only improves students' adaptability to stage challenges but also helps maintain psychological stability when facing mistakes or uncertainty. The core of the training mechanism lies in stimulating the accumulation of successful experiences through multi-level, multi-context performance simulations and feedback loops, gradually constructing a sense of control over stage performance and consistency of expectations.

Gradual exposure training is an effective method for enhancing control, where performance scenarios progress from low-risk to high-risk, enabling students to adapt to stage pressure and reduce the erosive effects of physiological arousal on psychological state. The predictability of performance procedures is also a key factor in strengthening control, including familiarization with performance sequences, increasing familiarity with venue structure, and establishing personalized ritualized preparation routines, all of which help mitigate the cognitive load caused by uncertainty.

Achievement feedback mechanisms are indispensable in training. Positive evaluation of performance processes reinforces reward pathways in the nervous system, thereby enhancing performance motivation and confidence. Curriculum design can incorporate a progression from small-scale classroom performances, to campus recitals, and finally to formal concert hall performances, gradually increasing challenge difficulty and pressure intensity. Standardized preparation procedures, such as sequence familiarization, venue layout rehearsal, and personal ritualized preparations (breath rhythm adjustment, physical relaxation exercises), effectively reduce cognitive load. Combining achievement feedback with video review, self-assessment scales, and neutral teacher evaluations reinforces neural reward pathways, improving motivation and confidence. Training should emphasize sustainability, encouraging students to establish "psychological growth portfolios" to promote cognitive flexibility and regulatory efficiency in anxiety-inducing situations [7].

### ***3.3 Integration of Guided Music Psychological Interventions and Group Support Strategies***

Guided music psychological interventions, through activities such as improvisation, structured performance, and emotional expression exercises, activate mechanisms of emotional release and cognitive restructuring, demonstrating significant effectiveness in alleviating music performance anxiety among university students. These interventions not only enhance students' sense of musical engagement but also reshape their positive emotional connection to performance contexts, strengthening performance confidence and positive expectations.

Group support strategies, implemented through small ensemble performances, peer sharing, and mutual evaluation mechanisms, establish platforms for emotional resonance and social buffering, alleviating individuals' feelings of isolation and defensive responses during performance assessment. Emotional contagion and identification processes within the group help reinforce students' sense of belonging and stage security, thereby reconstructing their psychological safety framework.

Effective interventions emphasize structured guidance and clearly defined psychological objectives, preventing emotional generalization and cognitive distraction. Integrating techniques such as mirrored performance, emotion labeling, and music-guided relaxation facilitates deep emotional release and cognitive restructuring through nonverbal channels. Structured group music activities provide students with low-risk platforms for expression, supporting more stable psychological regulation and performance outcomes in formal performance settings.

## **Conclusion**

Music performance anxiety among university students, as a multidimensional and interactive psychological response, encompasses core factors such as cognitive bias, emotional overload, physiological arousal, and social evaluation pressure, significantly constraining both professional development and psychological well-being. This study systematically analyzed its causal mechanisms across three dimensions: vulnerability in self-cognition, external expectation pressure, and deficiency in regulation strategies, and constructed an intervention pathway centered on cognitive restructuring, self-efficacy enhancement, and music-based psychological interventions, aiming to improve students' psychological adjustment and stage stability in high-pressure performance contexts.

The study theoretically enriches the anxiety intervention framework within higher music education and provides practical, feasible guidance for constructing interventions with strong contextual adaptability and operational applicability. Future research could further focus on individual difference

dimensions, developing personalized adjustment programs based on personality traits, performance experience, and other factors; meanwhile, the integration of technologies such as virtual reality and physiological feedback is recommended to enhance intervention immersion and scientific rigor, promoting the deep integration of music education and psychological health support, and ultimately facilitating the coordinated development of students' professional skills and psychological resilience.

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