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# A Study on Design Strategies for Handcraft Therapy for Urban Youth Based on Embodied Cognition

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## Abstract

Against the backdrop of escalating social pressure in contemporary society, emotions such as anxiety and depression have become increasingly prevalent, and traditional intervention methods struggle to meet the needs for daily, low-threshold emotional regulation. Among them, handcraft therapy, as a branch of art therapy, provides a potential pathway for stress relief and emotional regulation with its characteristics of tactile experience and repetitive creation. This study analyzes the regulatory mechanism of handcraft behaviors in multi-sensory participation, repetitive operations, and emotional feedback through questionnaires and interviews. On this basis, it proposes design principles and strategies for handcraft therapy tailored to urban youth. The research results indicate that handcraft therapy design based on embodied cognition can effectively alleviate stress, providing theoretical support and practical reference for the design of emotional intervention products.

**Keywords:** Embodied Cognition; Urban Youth; Handcraft Therapy; Emotional Regulation

## 1. Introduction

### 1.1 Research Background

In recent years, with the acceleration of social rhythm, the pressure borne by young people has presented diversified and persistent characteristics. In addition to traditional stressors such as

academic and employment pressure, workplace competition, and interpersonal relationships, economic burdens and housing costs (e.g., rental pressure) have further increased their psychological load. The superposition of various pressures has led to the rapid spread and normalization of emotional problems such as anxiety and depression. Negative emotions arising from long-term exposure to high-pressure environments not only affect the quality of daily life but may also trigger severe psychological disorders.

**Table 1.** Summary of Stress Characteristics of Urban Youth

Source of Stress	Typical Manifestations	Emotional Impact
Work Pressure	Heavy workload, performance evaluation	Anxiety, fatigue
Academic Pressure	Examinations, educational competition	Nervousness, self-doubt
Financial Pressure	Rent, living expenses	Insecurity
Social Pressure	Interpersonal relationships	Emotional fluctuation
Information Pressure	Information overload, fragmented attention	Difficulty concentrating

*Source: Compiled by the author*

As mental health issues gain increasing social attention, the mental health of young people has become a widespread concern across society. More and more young people are actively seeking ways to regulate emotions, relieve stress, and achieve psychological healing. Against this background, non-pharmaceutical, low-threshold healing methods that integrate into daily life have received growing attention.

Art therapy, as a non-verbal, creative intervention, gradually emerged in the 1940s. It adopts craft therapy, painting therapy, music therapy and other forms, centered on creativity, encouraging individuals to express themselves freely through artistic activities such as painting, music, dance, and writing. Professional skills are not required; the creative process itself serves as emotional release and self-exploration. Craft therapy is an important branch of art therapy, focusing on the relationship between materials, craftsmanship, and emotional regulation. Handcraft therapy is the practical application of craft therapy, achieving emotional intervention mainly through manual operations and tactile experiences.

Currently, healing products on the market suffer from severe homogenization, dominated by blind trend-following design. These products lack grounding in psychological and design theories, mostly focus on professional psychological treatment scenarios or generalized relaxation needs, and rarely feature exclusive products designed for young people's daily life scenarios with art therapy as the core logic. Therefore, they fail to meet young people's demand for convenient and personalized emotional healing. Hence, developing tailored art therapy products for urban youth has practical demand and research value.

## **2. Literature Review**

### **2.1 Research Status of Urban Youth's Psychology**

With rapid urbanization, the social environment is highly competitive and fast-paced. Existing research generally indicates that the pressure of urban youth mainly comes from increased work demands, changing consumption patterns, and accelerated life rhythm. Employment pressure and uncertainty in career development leave young people in a state of constant tension, requiring continuous psychological adjustment.

At this stage, stress manifestations have shifted from overt to covert, from short-term stress response to persistent psychological burden. This normalized pressure may not directly trigger mental illness, but long-term accumulation impairs emotional stability and quality of life. Academics refer to this state as “sub-health psychological state”, i.e., a marginal state between mental health and mental illness (Dou et al., 2024).

In terms of lifestyle, urban youth generally have fragmented time, scattered attention, and heavy reliance on digital media. Although current entertainment and leisure methods are diverse, most only provide short-term stimulation and fail to help individuals establish sustainable stress regulation mechanisms. Therefore, exploring stress regulation methods suitable for daily life scenarios has become an important direction in this field.

### **2.2 Relevant Theories of Art Therapy**

#### **2.2.1 Concept and Development of Art Therapy**

In Chinese academic discourse, “art healing” is a comprehensive term for “art therapy” and “art healing”, integrating connotations of both to a certain extent (Pan & Yin, 2024). It is a non-verbal expressive therapy spanning art and psychology, supported by multidisciplinary theories, combining artistic activities with psychotherapy. Essentially, it achieves psychological regulation and self-growth through artistic creation and aesthetic experience.

As an independent professional theoretical and practical system, art therapy originated in the 20th century (Pan & Yin, 2024). By the mid-20th century, psychological theories laid its disciplinary foundation (Liu, 2025). Its development is closely related to the psychotherapy industry, humanistic psychology trend, and the deinstitutionalization of mental health. On one hand, it inherits psychoanalytic theory's emphasis on symbolism, projection, and unconscious expression; on the other hand, it absorbs core ideas of humanism, emphasizing self-actualization, subjective experience, and relational support. Entering the 21st century, research focus has gradually shifted from "whether it works" to "how it works", establishing connections with emotional regulation, traumatic memory reorganization, embodied cognition, neuroplasticity and other fields.

Art therapy includes many forms, such as painting, music, dance, handcraft, floral art, and writing. Centered on creativity, it encourages free expression through various art forms without requiring professional skills; the creative process itself serves as emotional release and self-exploration. For those who struggle to sort out emotions, traumas, or inner confusion through words, art therapy helps convey feelings and emotions, alleviating physical tension and psychological anxiety. With its unique operational logic, art therapy guides individuals to fully engage in creation. Under the guidance of professional therapists, individuals can experiment and explore in a pressure-free environment, accept their emotions and creative outcomes, gradually develop a mindset of self-acceptance, and enhance self-confidence.

### **2.2.2 Characteristics of Handcraft Therapy**

As a type of art therapy, handcraft therapy is a comprehensive practice integrating psychology, art, and brain science. Rooted in the nature of handcraft, it emphasizes the adaptation of physical materials and craftsmanship to healing needs, with its theoretical foundation involving flow theory and research on left and right brain functions. Participants engage in psychological regulation and self-empowerment through handcraft forms such as weaving, pottery, paper-cutting, embroidery, and collage. The essence of handcraft therapy lies in combining the aesthetic value of art with the practical value of handcraft, lowering the participation threshold of art therapy, and enriching its practical pathways and application scope. In terms of application scenarios, handcraft therapy is widely used in mental health services, for individuals with specific physical and psychological conditions, community care, prison inmates, and special groups, adopting different forms of handcraft creativity and production for different healing recipients.

### **2.2.3 Mechanism of Action of Handcraft Therapy**

Handcraft therapy is a comprehensive emotional regulation method formed at the intersection of psychology, art, and brain science, with its core lying in promoting improvements in individuals' physical and mental states through specific handcraft activities. In terms of mechanism, handcraft therapy mainly relies on the synergistic effects of behavioral participation, sensory experience, and psychological feedback (Feng et al., 2024). This involves the coordinated mobilization of physical operations at the physiological level and reflective experiences at the psychological level. By coordinating hands and brain to use tools, process materials, and implement preset ideas, handcraft therapy is essentially a process of coordinated interaction between the body, cognition, and emotions. Its repetitive operation characteristics stabilize and relax the nervous system through rhythmic movements, reducing anxiety and stress responses. Autonomous decision-making during creation and the sense of accomplishment from completing works enhance self-efficacy and psychological resilience, forming positive emotional feedback. These three interwoven mechanisms make handcraft therapy a non-verbal, low-threshold, highly inclusive psychological adjustment method, especially suitable for individuals with expression difficulties or trauma sensitivity.

### **2.3 Embodied Cognition Theory**

Embodied cognition, also translated as “enactive” cognition (Meng, 2007), is an emerging field in contemporary cognitive psychology research. It advocates the integration of mind and body, where the body and mind interact and influence each other, with cognition centered on the body and its environment. Unlike traditional cognitivism, embodied cognition theory emphasizes dynamic interactions between the body, environment, and behavior, focusing on the body's pivotal role in cognitive processes and proposing a non-linear pathway for constructing “perception-emotional experience”.

### **2.4 Multi-Sensory Perception and Emotional Regulation Mechanism**

#### **2.4.1 Visual Perception and Tactile Expectation**

During product interaction, vision is usually the first perceptual channel through which users encounter a product. The product's color, form, material texture, and overall atmosphere form psychological expectations of touch before actual contact. This “tactile imagination” triggered by vision can influence an individual's willingness to touch further.

From the perspective of embodied cognition, perception is not the independent operation of a single sense but a dynamic process involving multiple senses. Vision not only performs

information recognition functions but also stimulates tactile expectations through material associations, emotional associations, and physical experiences. For example, soft fibers, low-saturation colors, and gentle curves are more likely to evoke a sense of security and willingness to approach.

Therefore, in handcraft therapy product design, visual experience is a prerequisite for tactile interaction, while touch is the core medium through which emotional regulation truly occurs.

### 2.4.2 Tactile Experience and Emotional Regulation Mechanism

In the study of emotional experience, touch is regarded as a direct, fundamental perceptual channel. As mentioned in the \*Heart Sutra\*, humans perceive the external world through five senses: sight, hearing, smell, taste, and touch. Touch mainly arises from contact between body parts and external objects, such as physical interactions like squeezing and friction. Different intensities of contact exert varying degrees of pressure and traction on tactile nerves, triggering a range of sensations from comfort to discomfort within a certain scope (Yan et al., 2024). Soft, warm, or rhythmically changing tactile experiences can alleviate tension and enhance a sense of security to a certain extent. Integrating tactile experience into the design process enables the creation of products with stronger emotional regulation functions.

From a design perspective, user experience can be understood as a dynamic cycle of “behavior – perception – emotion”. As one of the five senses, touch plays a vital role in human development and daily life. People often explore the unknown world by touching new things, so touch acts more rapidly than sight, hearing, and other senses in emotional regulation. Individuals interact with products through behavior, generating perceptual feedback that triggers emotional changes, which in turn influence subsequent behavior. This closed-loop mechanism fosters dependence and trust between people, objects, and environments, alleviates stress and anxiety, improves health levels (Wei et al., 2025), and provides a theoretical basis for transforming healing mechanisms into design strategies.



Source: Created by the author

**Figure 1.** Mechanism of Handcraft Therapy for Emotional Regulation Based on Embodied Cognition

### **3. Research Methods**

#### **3.1 Questionnaire Survey**

This study adopts the questionnaire survey method to investigate the stress status, physical experience, and emotional regulation methods of stressed urban youth in daily life. The questionnaire is designed from three dimensions: physical participation, perceptual experience, and emotional changes, aiming to explore the psychological regulatory effects generated by individuals during specific behaviors and sensory participation. The physical participation dimension mainly investigates the frequency and manner of respondents' participation in handcraft activities or similar repetitive operations, analyzing the relationship between behavioral participation and stress status. The perceptual experience dimension focuses on the impact of tactile experience on psychological status, emphasizing the role of material touch, operation rhythm, and process experience in relaxation. The emotional change dimension evaluates the effects of handcraft activities on stress relief, concentration, and psychological recovery by assessing changes in emotional status before and after the activity.

The questionnaire includes single-choice, multiple-choice, and open-ended questions to ensure comprehensive and accurate collection of research data. Distributed via online platforms, the survey targets urban youth across diverse occupations and lifestyles to enhance sample representativeness and research reliability.

#### **3.2 Semi-Structured Interviews**

To gain an in-depth understanding of the relationship between stressed urban youth's handcraft therapy experiences and emotional regulation, this study employs semi-structured interviews, a flexible form of qualitative research. Compared to questionnaires, interviews can more subtly reveal individuals' physical experiences, perceptual processes, and emotional change pathways under stress, providing specific evidence for design research from the embodied cognition perspective.

Interviewees are selected based on the criterion of "persistently experiencing urban life stress", covering young people across different occupations and lifestyles. The interview outline centers on core content: physical reactions under stress, daily behavioral regulation methods, handcraft activity experiences, tactile and operational sensations, and emotional change processes. Open-ended questions guide respondents to recall and describe their physical sensations and psychological changes during handcraft therapy.

Detailed records are kept throughout the interviews, and interview content is systematically organized immediately afterward for subsequent analysis and research.

### 3.3 Analysis of Classic Cases

Tactile interaction during handcraft creation exerts soothing effects on physical and mental states. Touch is the earliest-developed sense, playing a critical role in distinguishing oneself from the surrounding world. Tactile social activities have gradually been replaced by the single tactile sensation of industrial electronic products, leading many to argue that human society has entered an era of “tactile hunger”. Chinese young artist Lin Yifan once designed healing-oriented public art work *Touch* for children with genetic defects (Zhang, 2023). She also guided ten children with autism to experience *Touch*, encouraging them to interact with the work and feel textures of different materials. She found that touch holds significant therapeutic value in children’s rehabilitation – every touch awakens physical and mental resonance and facilitates self-discovery.



**Figures 2 and 3** Children Experience Different Textile Tools

Panamanian interdisciplinary textile artist Katrina Sánchez focuses on soft sculpture creation. She explores connections between color, texture, touch, and humanity through texture and knitting. Her works align closely with concepts of community, healing, and renewal. Creation requires assembling numerous independent components into a whole; at the core of Katrina Sánchez’s work is stimulating multi-sensory experiences and evoking viewers’ desire to touch. She believes that knitting large-scale fibers enhances the softness and texture of works, arousing viewers’ desire to touch and interact. The familiarity of textiles also evokes collective intimacy, warmth, and joy.



**Figure 4** Katrina Sánchez and Her Works

### **3.4 Construction of Healing Product Design Strategies**

#### **3.4.1 Low-Threshold Access and Immediate Usability Strategy**

Urban life is fast-paced and high-pressure, leaving young people lacking sufficient time and energy for sustained engagement in complex activities. At this stage, if healing activities require significant cognitive resources to learn rules or skills, they will instead increase physical and mental burdens, contradicting the purpose of stress relief. Therefore, products should lower the barrier to use, adopting extremely simple interactions to help users enter emotional regulation states in a short time. Design should simplify operation processes and reduce learning costs, enabling users to complete basic operations without additional cognitive burdens.

In specific design, products should eliminate cumbersome preparation work, adopting modular structures and intuitive interactions to achieve an “instant use” experience while shortening preparation time. This strategy enhances the feasibility and portability of products in daily life, allowing stress regulation behaviors to occur naturally in fragmented time and further improving practical application effects.

#### **3.4.2 Rhythmic Behavior Guidance Strategy**

Based on embodied cognition theory and attention regulation mechanisms, stable rhythmic repetitive movements effectively shift attention from external stressors to one’s own physical behavior, thereby alleviating psychological burdens. Therefore, product design should prioritize creating rhythmic behaviors, forming stable behavioral rhythms through repetitive, predictable operations.

In design implementation, continuous actions such as weaving, splicing, and arrangement can structure operation processes, guiding users to gradually enter a focused state through sustained

operations. This steady behavioral rhythm induces a flow-like experience, smoothing emotional fluctuations imperceptibly and allowing stress to dissolve in the regular movements of fingertips.

**3.4.3 Multi- Sensory Participation and Tactile Enhancement Strategy**

From the perspective of embodied cognition, emotional experience arises not from a single sense but from the combined effects of sight, touch, and behavioral participation. In handcraft therapy products, vision is usually the first channel through which users encounter a product. Material color, shape, texture, and overall atmosphere initially convey emotional cues and tactile expectations, further stimulating users’ willingness to actively touch and operate.

Building on this, tactile experience deepens physical participation through interactions with soft, warm, or rhythmic materials, gradually immersing users in a focused state and drawing their attention away from anxious thoughts. Combined with repetitive handcraft operations and subtle sensory feedback, multi-sensory synergy ultimately achieves natural emotional regulation.

**3.4.4 Daily Context Embedding and Sustainable Use Strategy**

For urban youth, stress is not sudden but persistent and scattered across contexts. Thus, emotional regulation methods need to be highly integrated into daily life. Guided by the concept of Design for Lifestyle, such products should blend into users’ daily scenarios as ordinary everyday objects, rather than requiring dedicated time or space for experience.

In design, product size can be controlled, usage optimized, and scenario adaptability enhanced to suit office, home, commuting, and other environments, enabling seamless integration of healing behaviors into various scenarios. Meanwhile, mechanisms for repeated operations and long-term participation should be strengthened, transforming healing from a one-time experience into a sustainable life practice and ultimately achieving stable, long-term stress regulation effects.

**Table 2.** Correspondence Between Design Strategies and Product Design

Design Strategy	Design Objective	Product Implementation
Low-threshold Access	Reduce participation barriers	Simplified operation process

Design Strategy	Design Objective	Product Implementation
Rhythmic Behavioral Guidance	Enhance immersion	Repetitive weaving or crafting actions
Multi-sensory Engagement	Strengthen embodied perception	Integration of visual and tactile stimuli
Daily Life Integration	Encourage long-term use	Portable and everyday-use products

*Source: Compiled by the author*

## 4. Conclusion

This study adopts questionnaire surveys, semi-structured interviews, and case analysis, finding that handcraft therapy has a significant and sustained effect in relieving urban youth's stress. Data shows that over half of respondents have basic handcraft experience, with journal collage, origami/paper-cutting, and clay/pottery being popular handcraft therapy methods. The primary motivations for participating in handcraft therapy are enriching life content and alleviating negative emotions. Over 60% of respondents frequently or persistently experienced emotional distress in the past month, over 40% recognized the relieving effects of handcraft therapy on negative emotions, and 70% expressed willingness to continue participating and recommend it to others. In addition, some respondents expect more innovative forms of handcraft therapy to avoid homogenization and hope for optimized environments for handcraft therapy. Through case analysis, comparisons of domestic and international art therapy cases reveal that tactile stimulation can regulate emotions in both conventional art therapy and handcraft therapy.

In summary, during handcraft therapy, participants achieve emotional release through repetitive creative activities. Furthermore, the creation process from scratch enhances participants' sense of accomplishment. This low-threshold, highly tactile, result-oriented craft creation is more suitable for self-healing among high-pressure urban youth.

Due to the researcher's limited cognitive level and understanding, this study inevitably has shortcomings. To address these deficiencies and guide future research directions, future studies can significantly expand sample size and population coverage, conduct systematic comparative research on groups with different characteristics, and explore in depth the differential effects

and internal mechanisms of various handcraft techniques in healing efficacy.

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