

Nursing Analysis of SEFT and PC6 Acupressure in Reducing Anxiety in Stemi Patients

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ABSTRACT

Anxiety is one of the most common psychological responses experienced by patients with ST-Elevation Myocardial Infarction (STEMI) during hospitalization in the Intensive Cardiac Care Unit (ICCU), which may affect physiological stability and the recovery process. Therefore, supportive non-pharmacological nursing interventions are needed to help manage anxiety. This study aimed to analyze nursing practice through the application of the Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure on anxiety levels in patients with STEMI. A case analysis was conducted on two patients with STEMI in the ICCU using a nursing care approach. The first patient received standard care combined with SEFT and PC6/Neiguan acupressure interventions, while the second patient received standard care only. Anxiety levels were measured using the State-Trait Anxiety Inventory (STAI). The patient who received SEFT and PC6/Neiguan acupressure experienced a reduction in anxiety level from moderate anxiety to no anxiety, while the patient who received standard care only did not show any reduction in anxiety level and remained in the moderate anxiety category. The application of SEFT and PC6/Neiguan acupressure in nursing practice was associated with reduced anxiety levels in patients with STEMI and may serve as supportive nursing therapies within a holistic nursing care approach for cardiovascular patients. (9 pt).

Keywords:

Acupressure PC6, Anxiety, Nursing Care, SEFT, STEMI.

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1. INTRODUCTION

Cardiovascular disease remains a major global health burden and continues to contribute substantially to morbidity and mortality worldwide, including ST-Elevation Myocardial Infarction (STEMI), which is associated with a high risk of acute mortality (Baumann et al., 2022; Zuccarelli et al., 2024). Despite advances in reperfusion therapy, STEMI remains associated with severe acute outcomes and requires intensive management (Lechner et al., 2020; Elendu et al., 2023). In contrast, the global incidence of non-ST-elevation myocardial infarction (NSTEMI) has increased due to population aging and the high prevalence of comorbidities, although STEMI continues to demonstrate more critical acute clinical presentations (Lechner et al., 2020).

According to the World Health Organization, cardiovascular diseases account for approximately 17.9 million deaths annually, with the majority occurring in low- and middle-income countries (World Health Organization, 2025). Ongoing challenges in the clinical management and outcomes of patients with acute coronary syndromes have been reported in different regions (Khan et al., 2023; Arechkik et al., 2025; Barbary et al., 2025).

In addition to its physiological effects, cardiovascular disease is closely associated with psychological disturbances, particularly anxiety. Anxiety is commonly experienced by patients with acute coronary syndrome, including ST-Elevation Myocardial Infarction (STEMI), and has been reported to affect nearly one-third of patients with cardiovascular disease worldwide (Karami et al., 2022). Elevated anxiety levels may activate the sympathetic nervous system, leading to increased heart rate, blood pressure, and myocardial oxygen demand, which can exacerbate ischemic conditions and compromise hemodynamic stability during the acute phase of STEMI (Alkhaqani, 2023). Psychological distress in cardiac patients has also been linked to emotional dysregulation and increased cardiovascular

risk (Mtawea et al., 2023; Di Giacomo et al., 2024). Among elderly cardiac patients, anxiety may be further influenced by coping strategies and social support during hospitalization (Elsayed et al., 2025).

The Intensive Cardiac Care Unit (ICCU) environment may further intensify anxiety in patients due to continuous monitoring, invasive procedures, restricted mobility, and uncertainty regarding the clinical outcomes. Patients hospitalized in intensive cardiac care settings often experience heightened psychological stress, which may contribute to increased anxiety during the acute phase of illness. Previous studies have shown that unmanaged anxiety in critically ill cardiac patients is associated with poor clinical outcomes, prolonged recovery, and an increased risk of complications (Mzoughi et al., 2021).

Pharmacological therapy is commonly used in the management of anxiety; however, the use of anxiolytic or antidepressant medications in patients with cardiovascular diseases may be limited due to potential side effects and drug interactions. Concerns regarding medication safety in cardiac patients have encouraged the exploration of non-pharmacological interventions as complementary strategies for managing anxiety. Non-pharmacological nursing interventions, including relaxation techniques, guided imagery, massage, and acupressure, have been reported to reduce anxiety and improve patient comfort in cardiovascular care settings (Zhao et al., 2023).

Acupressure is a non-invasive intervention that involves the stimulation of specific points on the body associated with neurological and physiological responses. Stimulation of the PC6 (Neiguan) point has been reported to reduce anxiety and improve physiological parameters in patients undergoing cardiovascular procedures (Ali, Ali and Hasan, 2022). Recent studies have demonstrated that PC6 acupressure contributes to significant reductions in anxiety levels, pain intensity, and vital sign stabilization in patients with cardiovascular conditions (Bal and Gun, 2024). Evidence from clinical studies also suggests that acupressure may contribute to improved comfort, reduced anxiety, and stabilization of vital signs in various patient populations (Hsu et al., 2022; Ebadi, 2025). Similar findings have been reported in randomized trials examining the effects of acupressure on anxiety and blood pressure (Wang et al., 2024; Nasirizade et al., 2025).

The Spiritual Emotional Freedom Technique (SEFT) has been applied as a complementary nursing intervention that integrates emotional regulation and spiritual acceptance to reduce anxiety (Ardiani et al., 2023; Rachman et al., 2023). Previous studies have demonstrated the potential benefits of SEFT in reducing anxiety among patients with cardiovascular and chronic conditions (Engla, Silvia and Siska, 2022; Kusuma, Pudjonarko and Sujianto, 2024). Additionally, SEFT has been combined with other supportive approaches to enhance psychological comfort in emergency and clinical settings (Muzaki et al., 2024).

Given the high prevalence of anxiety among patients with ST-Elevation Myocardial Infarction (STEMI) and the need for holistic, patient-centered nursing care, practical non-pharmacological interventions that can be safely implemented in intensive cardiac care settings are required. Therefore, this case study aims to analyze nursing practice through the application of the Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure in reducing anxiety levels among patients with STEMI in the Intensive Cardiac Care Unit.

2. METHOD

This case study describes the nursing care provided to two male patients diagnosed with ST-Elevation Myocardial Infarction (STEMI) who experienced anxiety during hospitalization in the Intensive Cardiac Care Unit (ICCU). Both patients received standard medical and nursing care according to the STEMI management protocols. Patient 1 received additional non-pharmacological nursing interventions consisting of the Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure for three consecutive days, while Patient 2 received standard care only during the initial three-day observation period. SEFT was administered through tapping techniques accompanied by emotional affirmation and spiritual acceptance, followed by bilateral PC6/Neiguan acupressure for approximately five minutes per session. Anxiety levels were assessed before and after the intervention using the State-Trait Anxiety Inventory (STAI). Ethical principles were applied throughout the study, including informed consent and maintenance of patient anonymity.

3. RESULTS AND DISCUSSION

The implementation of nursing interventions in the two patients showed differences in anxiety level changes during the observation period. Patient 1 received standard STEMI care accompanied by Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure from the beginning of hospitalization, while Patient 2 received standard care only during the initial three days.

Based on the State-Trait Anxiety Inventory (STAI) assessment, Patient 1 demonstrated a decrease in anxiety score from 38, indicating moderate anxiety, to 20, indicating no anxiety, after three days of nursing interventions. In contrast, Patient 2 showed a decrease in the STAI score from 44 to 39 and remained within the moderate anxiety category. Changes in anxiety scores for both patients are presented in Table 1.

Table 1. Anxiety Level Assessment Using STAI

Patient	STAI Score Before	Anxiety Level	STAI Score After	Anxiety Level
Patient 1	38	Moderate	20	No anxiety
Patient 2	44	Moderate	39	Moderate

The vital signs of both patients remained hemodynamically stable before and after the observation period. Patient 1 showed stable blood pressure, heart rate, respiratory rate, and oxygen saturation throughout the hospitalization period. Patient 2 also demonstrated stable hemodynamic parameters during the observation period, although minor fluctuations were noted.

From a behavioral perspective, Patient 1 appeared calmer and more cooperative and reported feeling more relaxed after receiving nursing interventions. The patient also reported improved sleep quality during the hospitalization period. In contrast, Patient 2 continued to display signs of anxiety, including restlessness and emotional distress, particularly when they were alone.

This case study illustrates the differences in anxiety reduction between two patients with ST-Elevation Myocardial Infarction (STEMI) during hospitalization in the Intensive Cardiac Care Unit (ICCU). The patient who received Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure from the early phase of care demonstrated a greater decrease in anxiety levels than the patient who initially received standard care only. These findings suggest that non-pharmacological nursing interventions may contribute to improved psychological comfort in patients with acute cardiac conditions.

Anxiety in patients with acute coronary syndrome has been reported to be associated with activation of the sympathetic nervous system, which may increase heart rate, blood pressure, and myocardial oxygen demand, potentially worsening the clinical condition (Karami et al., 2022; Alkhaqani, 2023). Nursing interventions that promote relaxation and emotional regulation may help reduce anxiety-related stress responses and support physiological stability during intensive cardiac care. The calmer behavior and improved comfort observed in patient 1 were consistent with this mechanism.

Previous studies have shown that acupressure at the PC6 (Neiguan) point is associated with reduced anxiety and improved physiological parameters in patients with cardiovascular disease (Ali, Ali and Hasan, 2022; Bal and Gun, 2024). In addition, SEFT has been reported to reduce anxiety in patients with certain cardiovascular conditions by integrating emotional regulation and spiritual acceptance (Ardiani et al., 2023). The findings of this case study align with the existing literature, although the observed outcomes should be interpreted cautiously because of the descriptive nature of the case study design.

Individual patient characteristics may have also-influenced the differences in anxiety reduction observed in this study. Factors such as age, coping mechanisms, family support, and spiritual beliefs affect psychological responses to acute illness and hospitalization (Mzoughi et al., 2021; Shen et al., 2025). The presence of supportive coping strategies and spiritual acceptance in Patient 1 may have contributed to a more favorable response to nursing interventions than in Patient 2.

From a nursing perspective, these findings highlight the importance of holistic, patient-centered care in managing anxiety among patients with STEMI. Non-pharmacological interventions, such as SEFT and PC6/Neiguan acupressure, can be considered supportive nursing strategies that are feasible to implement in the ICCU setting alongside standard medical treatment. However, this case study is limited by the small number of patients and a single clinical setting, which restricts its generalizability. Further studies with larger sample sizes are required to explore the role of these interventions in broader clinical contexts.

4. CONCLUSION

This case study indicates that the application of non-pharmacological nursing interventions, including the Spiritual Emotional Freedom Technique (SEFT) and PC6/Neiguan acupressure, was associated with a reduction in anxiety levels in patients with ST-Elevation Myocardial Infarction (STEMI) during hospitalization in the Intensive Cardiac Care Unit. The findings highlight the potential role of holistic, patient-centered nursing care in addressing psychological responses alongside physiological management in acute cardiac care settings. Although limited by the small number of cases, this case study provides practical insights into nursing interventions that may support anxiety management in patients with STEMI and inform future clinical practice and research.

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