



# Acceptance and Commitment Therapy and Therapeutic Relationships to Mitigate Post Traumatic Stress Disorder in Surgical Patients: A Systematic Review

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## Abstract

**Background:** Although trauma significantly affects surgical patients, limited research exists on effective therapeutic strategies, particularly the use of acceptance and commitment therapy (ACT) and therapeutic relationships in mitigating Post-traumatic stress disorder (PTSD) symptoms. This study aims to evaluate the potential benefits of ACT and therapeutic relationships for managing PTSD in surgical patients. **Methods:** A systematic literature review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. Databases such as PubMed, ScienceDirect, EBSCO, Springer, Google, and Google Scholar were searched for articles published between 2000 and 2022 in English and Bahasa. The search focused on keywords related to ACT, therapeutic relationships, and PTSD in surgical patients. The study selection process resulted in the identification of seven relevant articles that met the inclusion criteria. **Results:** The literature review identified PTSD as a significant issue for postoperative patients, adversely affecting various

health outcomes, including rehospitalization rates, daily functioning, and overall recovery. ACT, a mindfulness-based therapeutic approach, emerged as a promising intervention for reducing PTSD symptoms by fostering acceptance of thoughts and feelings and enhancing patients' psychological flexibility. In addition, fostering therapeutic relationships between healthcare providers and patients showed potential for improving clinical outcomes. Although studies on the combined use of ACT and therapeutic relationships remain limited, initial evidence suggests that integrating these approaches may accelerate recovery and improve psychological outcomes for postoperative patients. **Conclusion:** This review underscores the potential of combining ACT and therapeutic relationships to mitigate PTSD symptoms in postoperative patients. Integrating these approaches into perioperative care could enhance psychological outcomes, foster patient engagement, and expedite recovery.

**Keywords:** PTSD, Acceptance and Commitment Therapy (ACT), Surgical Patients, Therapeutic Relationships, Perioperative Care.

**Significance** | This review discusses the effectiveness of ACT and therapeutic relationships in reducing PTSD symptoms among surgical patients postoperatively.

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## Introduction

Post-traumatic stress disorder (PTSD) frequently occurs at high rates among surgical patients following surgery (LaRose et al., 2022). The causes of PTSD include a lack of intraoperative awareness, high-risk surgery, pre-existing psychiatric history, dissociation, medication side effects, surgical complications, pain,

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and delirium (El-Gabalawy et al., 2019). The prevalence of PTSD after surgery or hospitalization is estimated to be up to 20% of patients (Whitlock et al., 2015). PTSD following surgery may present with clinical symptoms that differ from the traditional concept of PTSD, as the stress response to critical illness, trauma, surgery, and burns involves significant changes in metabolic processes (Finnerty et al., 2013). Therefore, a comprehensive assessment of risk factors before surgery, along with an evaluation of stressor symptoms, should be initiated early in the postoperative care period (Rawashdeh et al., 2021).

Trauma is a significant experience for surgical patients and can result in PTSD for several individuals. Complementary interventions may help mitigate the risk of PTSD during the perioperative stages, such as providing appropriate control, adequate information, intensive case management, and behavioral techniques (Deatrich & Boyer, 2016). The use of specific anesthetic agents, like sevoflurane, has been shown to reduce the risk factors associated with PTSD (Zhong et al., 2022). Additionally, offering screening and support raises awareness about the potential for post-traumatic stress disorders (Turgoose et al., 2021). Interventions during the first three months following trauma are often necessary, as they provide more immediate support (Diamond et al., 2022). Pharmacotherapy and psychotherapy are effective in treating, preventing, and identifying disability risk factors associated with PTSD (Joseph et al., 2020, p. 4).

The number of patients suffering from severe postoperative trauma is increasing annually, with 15% of surgical patients in Europe experiencing postoperative trauma (Dobson, 2020, p. 47). This is a significant issue that is exacerbated by the COVID-19 pandemic, as indicated by a 2022 study conducted by the Royal College of Psychiatrists. Although research on PTSD among vulnerable populations, such as those who have undergone major surgery, is lacking, the prevalence of PTSD in the general population of Indonesia is unclear. According to Inigo et al. (2015, p. 216), 1.5–3.8% of all trauma patients in Manado, Indonesia, required significant surgery. Meanwhile, Tamah et al. (2019, p. 3) found that 9% to 21% of Indonesians experience anxiety related to surgery.

Previous studies have examined psychosocial approaches that have positively impacted patients' mental health. However, there is limited information on the relationship between acceptance and commitment therapy (ACT) and therapeutic relationships among surgical patients. These therapies appear to be a promising strategy for managing PTSD, as they may help patients develop adaptive coping mechanisms in response to surgical conditions. The current study aims to assess the benefits of these therapies for patients following surgery. It is anticipated that the findings will assist surgical nurses in providing comprehensive interventions to mitigate PTSD in the perioperative setting.

## 2. Methodology

A literature review was conducted to achieve the study's objectives. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were followed during the study selection process. Several online databases were utilized, including PubMed, ScienceDirect, EBSCO, Springer, Google, and Google Scholar. The search criteria focused on articles in English and Bahasa discussing acceptance and commitment therapy and therapeutic relationships in patients undergoing surgery, primary review studies, completed study designs, and publications dated between 2000 and 2022. Keywords included: 'acceptance commitment therapy and therapeutic relationship patients with surgery,' 'acceptance commitment therapy patients with surgery,' 'post-traumatic stress disorder patients with surgery,' 'therapeutic alliance patients with surgery,' and 'acceptance commitment therapy therapeutic relationship post-traumatic stress disorder patients with surgery.'

A PRISMA flow diagram was used to gather and present 94 publications for data-process analysis (Figure 1). The selected studies were assessed based on article details (title, journal, year of publication) and research details. The goal of the search process was to reduce repetition by adhering to the established criteria. The researcher identified studies that focused on the primary aim of the study by examining different titles and abstracts. All studies related to acceptance and commitment therapy and therapeutic relationships were collected ( $n = 94$ ). Articles that were irrelevant to the topic or did not discuss acceptance commitment therapy and therapeutic relationships in detail, as well as editorials and book chapters, were excluded ( $n = 32$ ). The remaining articles ( $n = 64$ ) were screened again, and additional studies were disregarded after reviewing titles and abstracts ( $n = 25$ ). Finally, after screening full texts based on the criteria ( $n = 39$ ), articles that did not meet the criteria were excluded ( $n = 32$ ). Seven articles discussing acceptance and commitment therapy and therapeutic relationships were ultimately included, compared, and analyzed (Table 1).

## 3. Results

Post-traumatic stress disorder (PTSD) is a significant and well-characterized consequence of injury that can adversely affect various health outcomes, including rehospitalization rates, the ability to work, daily activities, and overall recovery (LaRose et al., 2022). Physical trauma, often necessitating surgical treatment or intensive care services, can predispose patients to psychological distress or PTSD following surgery (El-Gabalawy et al., 2019; Whitlock et al., 2015). Given the prevalence of PTSD in these patients, clinical psychiatric nurses, as frontline healthcare providers, are recommended to utilize clinical tools to promote early detection and management of PTSD symptoms (Korman et al., 2019).

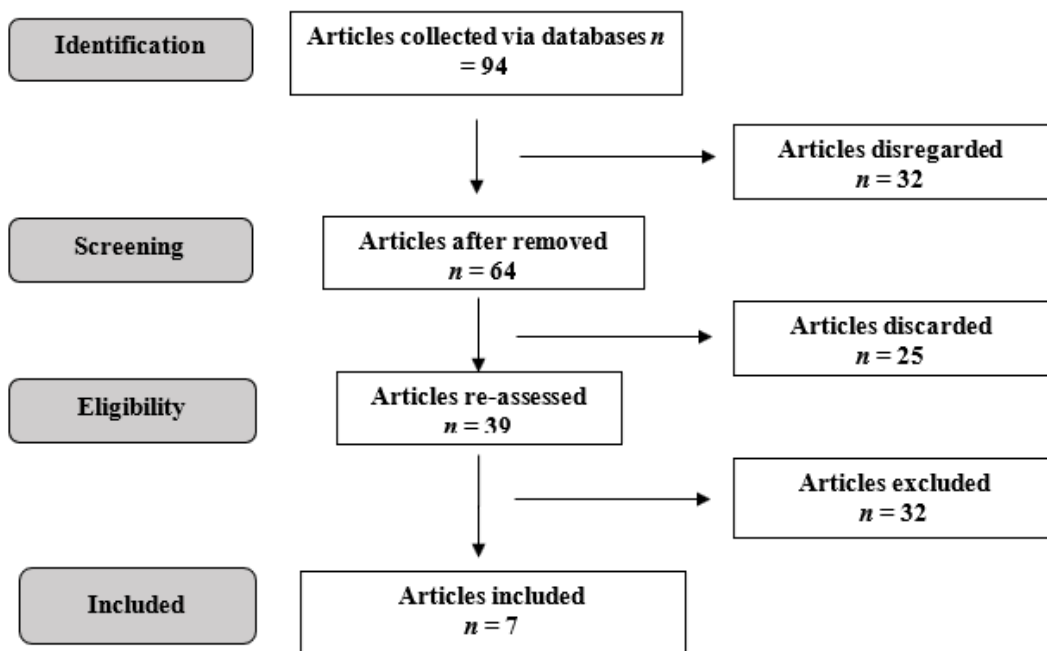


Figure 1: PRISMA flow diagram illustrating the study selection process.

Table 1: Overview of studies discussing acceptance and commitment therapy and therapeutic relationships.

No	Author and year of publication	Participants	Method	Comparison therapy (If any)	Outcomes
1	Cojocaru et al., 2021	Post-surgery	Review	None	ACT reduce the risk of PTSD
2	Mohamadi, Mirzaian, & Dousti, 2019	Cardiac surgery	Quasi-experimental study	Usual care	ACT improve psychological outcomes
3	Weineland, Arvidsson, Kakoulidis, & Dahl, 2012	Bariatric surgery patients	RCT	Usual care	ACT improve psychological outcomes
4	Paolucci et al., 2019	Patient with breast cancer	RCT	Usual care	Therapeutic Alliance improve feeling of comfortable
5	Vitomskyi, Balazh, Vitomska, Martseniuk, & Lazarieva, 2021	Patients with cardiac surgery	Observational study	None	Therapeutic Alliance correlate with improved outcomes
6	Miano, Di Salvo, & Lavaggi, 2021	Patients with genital cosmetic surgery	Case study	None	Therapeutic Alliance prevent negative outcomes
7	Erci, Sezgin, & Kaçmaz, 2008	Patients in perioperative stages	RCT	Usual care	Therapeutic Alliance reduce anxiety

Despite the limited number of studies available, this review identifies acceptance and commitment therapy (ACT) and therapeutic relationships as potentially beneficial in reducing PTSD symptoms in postoperative patients. It is hypothesized that combining these therapies could accelerate the healing process in patients with PTSD. ACT, a type of mindful psychotherapy, focuses on helping patients stay in the present moment while accepting their thoughts and feelings without judgment. This therapeutic approach may reduce or prevent the risk of PTSD (Cojocaru et al., 2021; Weineland et al., 2012). The National Institute for Health and Care Excellence (NICE) has included ACT among its psychological approach recommendations for managing chronic symptoms, including those associated with surgery (NICE, 2021). The central premise of ACT involves accepting what is beyond one's control while committing to changing behaviors within one's control. For example, a study conducted among bariatric surgery patients showed that ACT could improve psychological outcomes (Weineland et al., 2012). However, practical applications of ACT remain limited, requiring further investigation in patients undergoing surgical procedures. The article selection process is illustrated in Figure 1.

#### Discussion

Another promising approach for managing PTSD in patients after surgery is fostering therapeutic relationships. This approach has been shown to positively influence clinical outcomes in physiotherapy (Miciak et al., 2018). The necessary conditions for a therapeutic relationship include presence, receptivity, genuineness, and commitment (Miciak et al., 2018). These conditions represent the attitudes and intentions of healthcare professionals and patients (Paolucci et al., 2019; Vitomskyi et al., 2021). Research has shown that patient-rated alliances predict treatment outcomes better than therapist-rated alliances, particularly in adolescents (Gergov et al., 2021). Consequently, therapists should integrate therapeutic relationship strategies with conventional therapy and assess their effectiveness. However, no studies have yet explored the combined use of ACT and therapeutic relationships. Identifying this gap presents an opportunity for nursing researchers to advance the profession through scientific inquiry.

#### 4. Conclusion

Post-traumatic stress disorder (PTSD) is a significant concern for surgical patients, often triggered by trauma, critical illness, or high-risk procedures. This review highlights the potential benefits of combining acceptance-commitment therapy (ACT) with therapeutic relationships to mitigate PTSD symptoms in postoperative patients. ACT focuses on mindfulness and acceptance, encouraging patients to live in the present and manage their emotional responses effectively, while strong therapeutic relationships foster trust, openness, and adherence to treatment.

Integrating these approaches into perioperative care could improve psychological outcomes and speed recovery. It is essential for clinical nurses to assess risk factors before surgery and to provide timely interventions for patients exhibiting signs of PTSD. Further research should focus on identifying high-risk patients and developing tailored strategies to enhance recovery and reduce the long-term impacts of PTSD following surgery.

#### Author contributions

W, FMS, and MAA were responsible for conceptualization, fieldwork, data analysis, original draft writing, editing, funding acquisition, and manuscript review. W and MAA focused on research design, methodology validation, data analysis, visualization, manuscript review, and editing. FMS contributed to conceptualization, investigation, data visualization, manuscript review, editing, and proofreading. Additionally, W handled methodology validation, investigation, manuscript review, funding acquisition, supervision, and editing. All authors have approved the manuscript after reviewing the final version.

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#### Competing financial interests

The authors have no conflict of interest.

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