



THE IMPLEMENTATION OF KOLCABA'S COMFORT SELF-EFFICACY THEORY ON ANXIETY IN HOSPITAL PATIENTS: A SYSTEMATIC REVIEW

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ABSTRACT

Hospitalization often causes physical and psychological stress in the form of pain, anxiety, and discomfort that impact the patient's quality of life. The application of Kolcaba's Comfort Theory combined with Bandura's concept of self-efficacy is believed to be able to increase comfort, reduce anxiety, and improve clinical outcomes for patients in the hospital. This systematic review aims to summarize empirical evidence regarding the implementation of Kolcaba's Comfort self-efficacy on patient anxiety and comfort in hospitals. The study used a systematic review approach with the PRISMA protocol. Literature searches were conducted through Google Scholar, Semantic Scholar, ProQuest, and ScienceDirect using keywords related to self-efficacy, patients, and Comfort Kolcaba. Included articles were publications from 2015–2025 with quantitative, qualitative, cross-sectional, RCT, and quasi-experimental designs. Of the 460 articles identified, 9 studies met the inclusion criteria for analysis. A total of 9 articles were synthesized based on the findings of the implementation of Kolcaba's comfort self-efficacy theory on hospital patient anxiety. The review showed that integrating self-efficacy with Comfort Theory effectively reduced anxiety, depression, and pain, as well as improving comfort, quality of life, therapy adherence, self-care skills, and patient satisfaction. Interventions proven effective included humanistic care, the Clark comfortable nursing approach, and non-pharmacological therapies such as smartphone-based virtual reality. The implementation of Comfort Kolcaba self-efficacy contributed significantly to improving the holistic comfort of patients in the hospital, particularly in reducing anxiety.

Keywords: anxiety; comfort kolcaba; hospital; patients; self-efficacy

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INTRODUCTION

Healthcare services in hospitals focus not only on curative aspects but also on maintaining patient comfort and quality of life. Hospitalization often causes physical and psychological stress such as pain, anxiety, depression, and discomfort, which can potentially worsen a patient's clinical condition (Magi et al., 2024). Therefore, nursing interventions need to integrate a holistic approach that targets not only disease healing but also comprehensive patient comfort. The application of nursing theory provides a scientific basis for providing systematic, measurable, and sustainable care. Theory provides a framework for nurses to assess patient needs, determine interventions, and evaluate outcomes (Ali, 2022). In the context of comfort, nursing theory enables nurses to understand the physical, psychological, social, and spiritual dimensions of patients that influence their perception of comfort and ability to cope with illness.

Kolcaba developed comfort theory, which emphasizes comfort as a fundamental human need, encompassing three main forms: relief, ease, and transcendence, across four experiential contexts: physical, psychospiritual, sociocultural, and environmental (Washington et al., 2021). This theory is relevant for hospital application because it can serve as a framework for improving patient comfort through individualized, holistic, and contextual interventions. Bandura's concept of self-efficacy is closely related to comfort theory, as a patient's belief in their ability to control symptoms, adhere to therapy, and adapt to treatment situations will increase overall comfort (Li et al., 2024). Studies

have shown that interventions based on self-efficacy and comfort theory can reduce anxiety, increase self-control, and improve quality of life in cancer patients and patients with chronic conditions (Gautama et al., 2023).

Numerous studies support the application of Kolcaba's theory in various settings. Humanistic care for gynecological patients has been shown to reduce pain and anxiety, and increase patient satisfaction (Zhang et al., 2024). A wound care model based on Kolcaba's theory accelerates wound healing and improves the quality of care (Lontaan et al., 2025). Furthermore, virtual reality-based interventions, as a non-pharmacological approach combined with comfort principles, have been shown to be effective in improving the comfort of cancer patients undergoing chemotherapy (Gautama et al., 2023).

Despite positive evidence, research on the implementation of Kolcaba's Comfort Theory combined with self-efficacy remains limited and fragmented. There has been no systematic review integrating various findings to provide a comprehensive understanding of the effectiveness of implementing this theory with hospitalized patients. Therefore, this systematic review is essential to summarize empirical evidence, identify research gaps, and provide recommendations for nursing practice and further research. This study aims to examine empirical evidence regarding the application of Kolcaba's Comfort self-efficacy to patient anxiety and comfort in hospitals.

METHOD

This research is a systematic review using the PRISMA (*Preferred Reporting Items for Systematic Reviews and Meta-analyses*) method. This method was conducted systematically by following the correct research stages or protocols. The *systematic review procedure* consists of several steps, namely: 1) compile background and purpose ; 2) research question: 3) searching for the literature; 4) selection criteria ; 5) practical screen; 6) quality checklists and procedures; 6) data extraction strategy; 7) data synthesis strategy (Ningsih, Adi & Saraswati, 2019).

Literature searches were obtained from *Google Scholar*, *Semantic Scholar Proquest*, and *ScienceDirect* . The keywords used were self-efficacy, patients, comfort, Kolcaba, and hospitals. In addition to keywords, the article search was based on articles written between 2015 and 2025, yielding 460 journal articles. The final result was that nine articles met the inclusion criteria. analyzed. A total of 9 articles were synthesized based on the findings of the implementation of kolcaba's comfort self-efficacy theory on hospital patient anxiety. Journal articles were selected based on several inclusion criteria. The inclusion criteria in this study include the following: 1) Research articles published in 2015-2025; 2) The type of research design is quantitative, qualitative, descriptive, cross-sectional; RCT, Quasi Experiment 3) The research study discusses the implementation of Comfort Kolcaba Theory self-efficacy in patients; 4) implemented in hospitals.

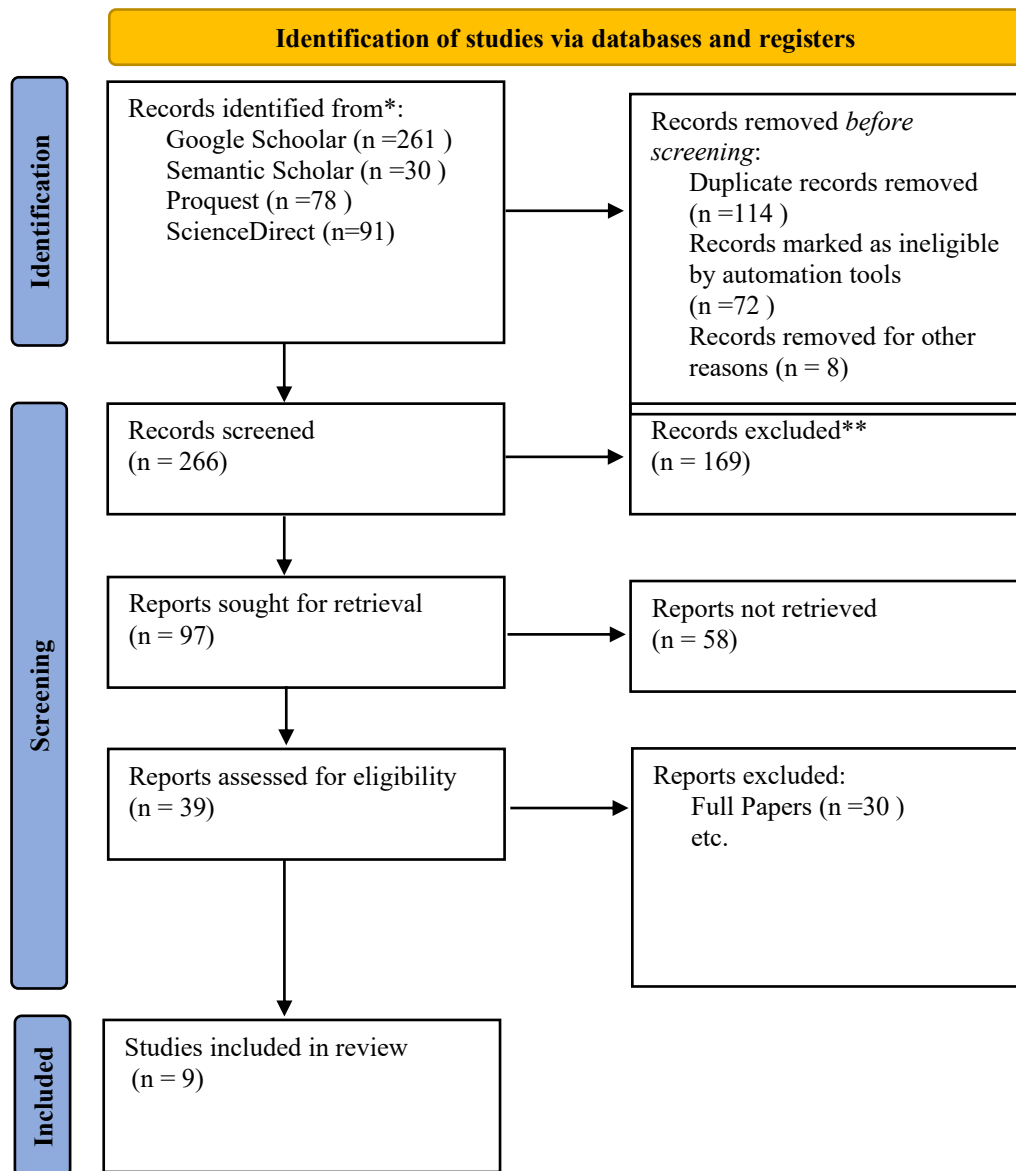


Figure 1. PRISMA

RESULT

Results review literature on article with range time rise year 2015-2025, use Language Indonesia And Language English and overall study found 9 Article based on topic systematic discussion review.

Table 1.
Literature Review

No	Researchers and Years	Country	Research Title	Method	Research Variables	Research result
1	Li et al. (2024)	China	Effect of trans-theoretical model-based nursing intervention on emotion and fear in post-liver cancer surgery patients	Quasi experiment (n=188)	TTM nursing intervention, fear of progression, anxiety, depression, QoL, comfort	TTM-based interventions reduce fear, anxiety, depression, and improve comfort and quality of life in HCC patients.

No	Researchers and Years	Country	Research Title	Method	Research Variables	Research result
2	Zhang et al. (2024)	China	Influence of humanistic care on negative emotions, nursing quality, and patient satisfaction in outpatient gynecological surgery	Retrospective (n=108)	Humanistic care, pain, anxiety, depression, comfort, satisfaction	Humanistic care reduces pain, anxiety, depression, increases comfort, quality of nursing and patient satisfaction.
3	Ali (2022)	Pakistan	Comparison of Orem's Self-care Deficit & Kolcaba's Comfort Theory	Case study	Orem self-care vs Kolcaba comfort	Orem emphasizes self-care for health maintenance, while Kolcaba emphasizes holistic comfort (relief, ease, transcendence)
4	Gautama et al. (2023)	Indonesia	Efficacy of smartphone-based VR relaxation in cancer patients undergoing chemotherapy	RCT (n=80)	VR relaxation, comfort, pain, anxiety, vital signs	Smartphone-based VR increases comfort, reduces anxiety & pain, and stabilizes vital signs.
5	Lontaan et al. (2025)	Indonesia	Development of moist wound healing governance model based on Benner and Kolcaba	Action research (qualitative, n=10 nurses)	Governance MWH, Benner & Kolcaba theory	Governance models improve the quality of wound care and accelerate healing.
6	Washington et al. (2021)	USA	Comfort Needs of Cancer Family Caregivers in Outpatient Palliative Care	Qualitative (n=39 caregivers)	Caregiver comfort needs (understanding, self-efficacy, meaning, support, self-care)	Comfort Theory identifies 7 key caregiver needs, essential for outpatient palliative care.
7	Demir et al. (2025)	Türkiye	Effect of end-of-life care awareness education on ICU nurses' knowledge, attitudes, and behavior	RCT (n=76)	EoLC education, knowledge, attitude, behavior	Education significantly improves ICU nurses' knowledge, attitudes, and behavior in end-of-life care.
8	Bilgiç & Pamuk Cebeci (2022)	Türkiye	Relationship between stressors and comfort level in	Descriptive-correlation (n=107)	Hemodialysis stressors, level of comfort (HCS)	A significant negative correlation was found between hemodialysis

No	Researchers and Years	Country	Research Title	Method	Research Variables	Research result
			hemodialysis patients			stressors (fatigue, fluid restriction, dependence on others, diet, muscle cramps) and patient comfort levels.
9	Li et al. (2024)	China	Analysis of the application effect of the Clark comfortable nursing approach in hemodialysis patients with ESRF	RCT (n=82)	Clark comfortable nursing, self-care ability, self-burden, adherence, QoL, complications	Clark comfortable nursing improves self-care ability, quality of life, therapy compliance, and reduces self-burden and complications in ESRF patients.

DISCUSSION

Self-Efficacy

Self-efficacy is an individual's belief in their ability to organize and carry out the actions necessary to achieve specific goals, including coping with illness and the treatment process. In the hospital context, self-efficacy is a psychological factor that significantly influences patient compliance with therapy, adaptability, and comfort during hospitalization. Studies show that high self-efficacy is correlated with increased self-control, decreased anxiety, and improved quality of life for patients, particularly those undergoing long-term therapies such as cancer and hemodialysis (Li et al., 2024; Li, Lin, Wang, Wang, & Wu, 2024).

Various theory-based intervention approaches have been proven effective in improving patient self-efficacy. For example, a Trans-theoretical Model (TTM)-based nursing intervention in post-liver cancer surgery patients successfully reduced anxiety and increased comfort by enhancing patient confidence in coping with the disease (Li et al., 2024). Meanwhile, the Clark comfortable nursing approach in hemodialysis patients with end-stage renal failure (ESRF) improved self-care skills, decreased psychological burden, and improved quality of life and adherence to therapy (Li et al., 2024). This suggests that integrating the concept of self-efficacy with comfort theory can strengthen the role of nurses in supporting patient recovery holistically.

Improving patient self-efficacy in the hospital has important implications for nursing practice. Patients with high self-efficacy tend to be more cooperative, better able to manage symptoms, and have a stronger motivation to actively participate in care. Therefore, nursing interventions should not only focus on physical aspects but also include strategies to strengthen patient self-efficacy through education, emotional support, and active involvement in care decision-making (Washington et al., 2021; Zhang, Xia, & Liu, 2024). Therefore, implementing interventions based on self-efficacy theory can be an effective strategy for improving clinical outcomes and patient well-being in the hospital. Comfort Kolcaba's Self-Efficacy.

Kolcaba's Comfort Theory emphasizes the importance of comfort as a fundamental patient need, encompassing physical, psychospiritual, social, and environmental aspects. Integrating this theory with Bandura's concept of self-efficacy provides a strong foundation for nursing practice, as patients' confidence in their ability to control symptoms and adhere to therapy directly contributes to increased comfort (Washington et al., 2021). Therefore, the implementation of Kolcaba's comfort self-efficacy

theory focuses not only on providing physical care but also on fostering patient confidence so they can actively participate in the healing process.

Several studies have demonstrated the effectiveness of implementing Kolcaba's self-efficacy and comfort concepts in hospitals. Trans-theoretical Model- based nursing interventions in postoperative liver cancer patients have been shown to reduce anxiety and improve quality of life by enhancing patient self-efficacy in overcoming fears of disease progression (Li et al., 2024). Similarly, Clark's comfortable nursing approach in hemodialysis patients improved self-care skills, therapy adherence, and reduced psychological burden and complications, demonstrating that the integration of comfort and self-efficacy is effective in improving clinical outcomes (Li, Lin, Wang, Wang, & Wu, 2024).

The implementation of this theory is also evident in humanistic care-based nursing practice, where attention to the emotional and psychological aspects of outpatient gynecology patients successfully reduced pain and increased comfort (Zhang, Xia, & Liu, 2024). In cancer patients undergoing chemotherapy, smartphone-based virtual reality interventions increased comfort, reduced anxiety, and strengthened self-efficacy in controlling treatment responses (Gautama, Haryani, & Huang, 2023). This evidence confirms that strategies that emphasize strengthening patient self-efficacy have a direct correlation with increased comfort, as outlined by Kolcaba.

Clinically, the application of Kolcaba's comfort self-efficacy theory in hospitals implies the need for nurses to integrate education, emotional support, and active patient involvement in care. Patients with high self-efficacy are not only more cooperative but also better able to cope with the stressors of care, significantly improving comfort and quality of life (Bilgiç & Pamuk Cebeci, 2022; Demir, Öztürk, & Demir, 2025). Therefore, hospitals need to make this approach a standard nursing strategy, focusing on patient empowerment through interventions based on Kolcaba's self-efficacy and comfort theories. Implementation of Kolcaba's Comfort Self-Efficacy on Anxiety.

Anxiety is a common psychological problem experienced by hospital patients, both acutely and chronically. Anxiety arises from the uncertainty of therapy, pain, medical procedures, and limited control over the care situation. The concept of self-efficacy plays a crucial role in reducing anxiety because patients who have strong confidence in their ability to manage symptoms feel calmer and more in control. Kolcaba's Comfort Theory supports this aspect by emphasizing psychospiritual comfort that can be achieved through strengthening patient self-efficacy (Washington et al., 2021).

Several studies support the effectiveness of self-efficacy within Kolcaba's comfort framework in reducing patient anxiety. Trans-theoretical Model- based interventions in post-liver cancer surgery patients have been shown to reduce anxiety and depression levels while improving patient comfort and quality of life (Li et al., 2024). In outpatient gynecology patients, the application of humanistic care emphasizing emotional support successfully reduced anxiety and increased satisfaction with care (Zhang, Xia, & Liu, 2024). Furthermore, non-pharmacological virtual reality- based therapy for cancer patients undergoing chemotherapy has also been reported to reduce anxiety by increasing self-control and experiencing comfort (Gautama, Haryani, & Huang, 2023).

The implementation of Kolcaba's comfort self-efficacy framework in hospital nursing practice significantly contributes to patient anxiety management. Patients with high levels of self-efficacy tend to be more adaptable, confident in dealing with medical procedures, and feel more comfortable during hospitalization (Li, Lin, Wang, Wang, & Wu, 2024; Bilgiç & Pamuk Cebeci, 2022). This confirms that nursing strategies emphasizing patient education, psychological support, and empowerment, based on Kolcaba's comfort framework, not only reduce anxiety but also support improved quality of life and overall clinical outcomes.

CONCLUSION

A systematic review showed that the implementation of Kolcaba's Comfort Theory, combined with the concept of self-efficacy, had a positive impact on hospitalized patients. Various studies have shown that interventions based on this theory are effective in reducing anxiety, enhancing self-care skills, reducing psychological burden, and improving the quality of life of patients with both chronic and acute conditions (Li et al., 2024; Li, Lin, Wang, Wang, & Wu, 2024; Gautama, Haryani, & Huang, 2023). The integration of self-efficacy within the comfort framework has been shown to increase patient confidence in therapy, improve adherence to treatment, and achieve holistic comfort according to Kolcaba's four contexts (physical, psychospiritual, social, and environmental). Operationally, the implementation of Comfort Kolcaba's self-efficacy can be strengthened through ongoing patient education programs, structured psychological support, and active patient involvement in care decision-making. Hospitals are expected to adopt this approach in nursing practice standards through nurse training, the development of theory-based intervention protocols, and monitoring of patient clinical outcomes.

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