

# Using Kolcaba's Comfort Theory in Nursing Research: A Critical Analysis

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## SUMMARY

Kolcaba had developed a theoretical framework for the work on comfort in nursing and has greatly influenced nursing profession, conceptualizing care as the immediate and holistic experience of feeling strengthened by meeting the needs of three types of comfort know as relief, ease and transcendence in the four contexts of holistic human experience such as physical, psychospiritual, social-cultural and environmental. Because of its easily searchable, understandable, and applicable; comfort theory is one of the most frequently used models that guide nursing research. Five studies that utilized different concepts and propositions of comfort theory were discussed. The three focused comfort type and context and two studies focused a Comfort Interventions and Health-Seeking Behaviors. Three of these studies supported comfort theory propositions one study provided partial support and one study did not.

**Keywords:** NURSING RESEARCH; CRITICAL ANALYSIS; health

## 1. Introduction

Kolcaba's Comfort theory is one of many theories that are clearly applicable to today's nursing practice, kolcaba developed a middle-range theory where she operationalized the comfort as an outcome of care and later on her theory has been tested in numerous interventional studies (Smith & Parker, 2015) comfort theory is developed in the 1990s and is up to date in application to current health care industry as it continues to change and have last updated in 2007 (March & McCormack, 2009).

Kolcaba developed her theory during her ongoing research, until she found in her results that changes in comfort can be measured using an experimental design in her thesis (Katharine Kolcaba & Fox, 1999). In this study, the patient's healthcare needs were those (comfort needs) related to early breast cancer diagnosis. The comprehensive therapeutic

intervention was directed images, designed specifically for this patient of patients to meet their own comfort needs, and the result of which was the comfort of the patients.

### Description of Comfort Theory

Kolcaba has conducted a conceptual analysis of the need for comfort and has studied research in many disciplines including nursing, medicine, psychology, psychiatry, work environment, and English (Peterson & Bredow, 2019). She explains in detail three existing forms of comfort which are relief, ease, and transcendence and explain that if nurse improve a patient from pain by administering analgesia the patient sense comfort in relief sense if the patient anxious issue is resolved he enjoy comfort in ease sense and if the patient is rising off the discomforting challenges through rehabilitation he senses comfort in form of transcendence. The four contexts in which patient comfort can occur are: physical, psychospiritual, environmental, and sociocultural

(March & McCormack, 2009).

According to (K. Y. Kolcaba, 1991); three previous nursing theories were used to describe three distinct types of comfort and their use in developing the concept of comfort: relief derived from Orlando's work, ease from Henderson while transcendence was adopted by Patterson and Zebard (Smith & Parker, 2015). Kolcaba further clarified the three current form of comfort in the context of the physical, psychological, spiritual, environmental, social and cultural environment (March & McCormack, 2009).

Kolcaba's theory successfully addresses the four elements of metaparadigm; nursing, patient, environment and health. The Theory of Comfort considers a patient to be individuals, families, institutions, or communities in need of health care. The environment includes all aspect of the patient, family, or institutional surroundings that can be manipulated by a nurse(s) or loved one(s) to enhance comfort. Health is a considered to be optimal functioning, as defined by the patient, group, family or community and the Intentional assessment of comfort needs, the design of comfort measures to address those needs, and the reassessment of comfort levels after implementation Assessment may be two types; objective, such as in the evaluation of wound healing, or subjective, from the patient such as by asking for comfortable (Tomey & Alligood, 2006).

In the model, nursing is described as the intentional assessment of comfort needs, the design of comfort interventions to address those needs, and reassessment of comfort levels after implementation compared with a baseline (Tomey & Alligood, 2006). Kolcaba includes definitions of key concepts of her nursing theory, as well. Health care needs are defined as comfort needs result from stressful health care situations that cannot be achieved by recipients' traditional method systems. Comfort needs include physical, psychospiritual, sociocultural, or environmental (K Kolcaba, 2001). Intervening variables are interacting forces that influence recipients' perceptions and issues of total comfort. These variables consist of past experiences, age, behavior, emotional state, education support system, prognosis, finances, cultural background, and the totality of elements in the recipients' experience (K. Y. Kolcaba, 1991). Health-seeking behaviors include a broad level of outcomes related to the provision of health as defined by the recipients in consultation with the nurse and suggested to be internal, external, or a peaceful death (Katharine Kolcaba & Kolcaba, 2011). Institutional integrity is the value, financial stability, and wholeness of health care organizations at the local, regional, state, and national levels. Finally, best policies and procedures developed by an institution for overall use after the collection of evidence (K Kolcaba, 2001)

### Critique of Comfort Theory

The Theory of Comfort by Katherine Kolcaba is a

middle-range theory. Middle range theories contain a limited number of concepts and have a more limited scope. It includes many major concepts, sub-concepts and relational statements. However, Comfort theory is classified as a high middle range theory making it a more general and abstract theory (Tomey & Alligood, 2006).

Kolcaba was developing her theory and arrangement of concepts is logical reasoning. She utilized induction, deduction, reduction. Kolcaba utilized a preexisting framework as her antecedent. The framework was written by Henry Murray (Tomey & Alligood, 2006).

Some of the early studies such as the concept analysis (K. Y. Kolcaba, 1991); defined theoretically and operationally concept theory of comfort is simple because it is basic to nursing care and the traditional mission of nursing and its language and application are of low technology, but this does not preclude its use in highly technological settings (Tomey & Alligood, 2006).

Kolcaba's theory has been applied in numerous research settings, cultures, and age groups and the only limiting factor for its application is how well nurses and administrators value it to meet the comfort needs of patients, also the comfort instruments have demonstrated strong psychometric properties, supporting the validity of the questionnaires as measures of comfort that reveal changes in comfort over time and support of the taxonomic structure (Tomey & Alligood, 2006).

It is easily searchable, understandable, and applicable. It uses easily observable variables that are easily measured by the nurse and can be used for research and performance review and the concept of comfort accounts for the aspect of quality that the patient describes as "feeling better." Kolcaba has made consistent efforts to develop and expand comfort into all realms of health care (Katharine Kolcaba & Kolcaba, 2011).

### Comfort Theoretical Modeling Study as A Conceptual Framework

Many researchers have used comfort theory to guide their studies. The following five studies have been selected to show their use of that model.

Studies by (Parks et al., 2017),(Li & Huang, 2017)and (Barros Ferreira et al., 2017); contained four contexts (physical, psychospiritual, environmental, and sociocultural) and three types of comfort: relief comfort, ease comfort, and transcendence comfort.(Parks et al., 2017); conducted a study to assess the difference in the level of comfort between psychiatric in patients who received a warmed blanket and psychiatric in patients who did not receive a warmed blanket. Similarly,(Li & Huang, 2017); conducted a study to observe and analyze the effect of comfortable nursing in the clinical nursing pathway for patients having hysteromyomectomy by study 60 patients in china with uterine fibroid were selected as research objects, and successively

subjected to laparoscopic surgery treatment and comfortable nursing. The comfort indexes before and after comfortable nursing were evaluated using a comfort scale. Barros Ferreira et al., (2017) used a mixed method study (Quantitative, Qualitative); carried out at the High Complexity in Oncology Center (CACON). Quantitative data were analyzed using descriptive statistics using Microsoft® Excel software. The qualitative data were analyzed following the steps recommended by the Content Analysis, in the Categorical Analysis modality, this study aimed to monitor the adverse effects of antineoplastic chemotherapy in patients undergoing outpatient treatment through telephone follow-up as a strategy to provide comfort, according to the assumptions of Katherine Kolcaba. Researchers in the three previous studies used comfort theory as a theoretical framework.

Parks et al., (2017) used comfort concept and derived from the taxonomic structure of comfort and holistic qualities of comfort, the four contexts are defined as (a) "physical refers to bodily sensations, (b) "psychospiritual—the internal awareness of self, (c) "environmental — temperature, and (d) "sociocultural—the interpersonal, family, and societal relationships". The total comfort was measured by using Kolcaba's verbal rating scale (VRS) where a score of 5 or more indicates contentment.

The Healthcare needs is a major concept of Kolcaba's comfort theory that used in this study include the physical, psychospiritual, social, and environmental needs and arise from stressful healthcare situations that cannot be met by traditional support systems, also the study was based on the concept of the use of warm topical applications in the hospital setting to assist in increasing patient comfort. However, (Li & Huang, 2017) conceptualized the nursing model, which integrates integral nursing and humanized nursing. The application of comfortable nursing in CNP can significantly improve the nursing quality of the hospital. From being admitted in a hospital, the patient is provided with the most comfortable hospitalization environment, also the preoperative anxiety, postoperative pain, mental and excretion condition of patients were fully considered in the CNP, therefore the doctors, nurses, and patients are in a sound coordination relation so that the most satisfactory nursing service can be provided to patients.

Parks et al., (2017) did not completely support comfort modeling study there is a lack of significances in the level of comfort between psychiatric in patients who received a warmed blanket and psychiatric in patients who did not receive a warmed blanket may have been due to several reasons. First, the small sample size obtained during the study period was due partly to a low patient census on the psychiatric unit at the time of the study along with the availability of subjects who met the study criteria during the study period. In

conclusion, Comfort is central to nursing and there has been little research regarding the effects of warm topical applications in the psychiatric hospital setting, also the warmed blankets are not routinely offered to patients in the psychiatric setting and the use of warmed blankets may increase patient comfort. On the other hand (Barros Ferreira et al., 2017) completely support comfort modeling study It is suggested that the telephone contact can be an effective strategy to periodically evaluate the patient's knowledge, discuss their concerns and desires and offer means of coping with the individual, besides being important in reinforcing and encouraging

Behavior and lifestyle changes. In this study, telephone follow-up, along with the instructions provided, managed to provide the patient with calmness regarding weakness, which according to the comfort theory, and is a state of calm and contentment.

By guiding the possible occurrence of weakness, the patient becomes aware of this condition and after that the patient begins to take measures to control this effect, such as rest and rest, in addition to respecting the new physical limits of his body imposed by a treatment or treatment. Therefore, the satisfaction of this comfort is mainly related to the spiritual, physical, and psychological contexts, since the patient adopts measures to reduce weakness and respect his limitations.

On the contrary, other researchers have invented a structural equation model based on taking advantage of kolkapa's theory of developing various relationships structural equation form kolkapa's theory was used to develop a theoretical model for estimating the path or relationships between the main variables (Nuraini et al., 2018) & (Estridge et al., 2018).

Nuraini et al., (2018) this project was designed to develop a path model of the relationships between the variables of nursing care (information, emotional support, technical support, and palliative care), patient coping, family support, patient spirituality, and patient comfort expressed through physical and emotional mediators. A model in this study was developed from Kolcaba's theory because it is suitable to the Indonesian context. Also, we assumed that palliative care, along with the latent variables of nursing care and individual resources, would affect patient comfort through physical and emotional mediators.

This project aimed to develop a theoretical model that statistically fits the data and was able to examine the factors affecting a cancer patient's comfort (nursing care, patient characteristics, coping, family support, and spirituality) with physical and emotional mediators by performed structural equation modeling (SEM).

According to Kolcaba; the nurses plays an important role to meet a patient's basic needs and deliver specific nursing care that is unique for each patient to improve the patient's comfort.

Accordingly, palliative care is important and appropriate for improving a patient's comfort. In Conclusion, comfort modeling study suggested that palliative care is affected patient discomfort through physical and emotional mediators; also this study showed that spirituality focused palliative care is the essential key to provide comfort among breast cancer patients in Indonesia. On the other hand, (Estridge et al., 2018) used other concepts of comfort modeling theory (ease, relief, and transcendence in physical, psychospiritual, environmental, and sociocultural contexts), the purpose of the study was to determine a potential relationship between comfort and fluid retention in adults with end-stage renal disease receiving hemodialysis. So when increased comfort for patients receiving HD that leads to improved adherence to fluid restrictions by these patients as needs are addressed or met.

To obtain positive patient outcomes Kolcaba suggests that increased comfort leads to improved adherence, decreased dialysis times, decreased dialysis usage, reduced nursing hours, and overall improved lived experience for hemodialysis patients. This study also established to determine if a relationship existed between the two variables of adherence to fluid restrictions (measured through fluid retention) and comfort, the operational definition.

of comfort was the score on a Likert-type scale using Kolcaba's (2007) General Comfort Questionnaire (GCQ), adapted for this population guideline and the instrument for this study contained 48 self-report items.

The result of this study was no significant relationship between the variables of comfort and adherence to fluid restrictions (as a preliminary study, it was not powered adequately to detect differences in comfort and convenience sampling may limit generalizability), this result was different than what we hypothesized based on Kolcaba's theory. Although the results were not statistically significant this finding has potential clinical importance to support clinical practice through minimizing weight gain to sustain comfort. and raising awareness of comfort as consideration for adherence to prescribed treatment regimens may help nurses to training patients to improve treatment adherence.

## 2. Discussion of Findings

This paper aimed to discuss five published studies in which a comfort theoretical modeling Study was applied as an organizational framework to guide these studies. The studies illustrated earlier point to the importance of using comfort nursing theory. The researchers discussed the reason for choosing comfort modeling theory to guide their works because achieving and enhancing comfort thorough assessment of his comfort needs, developing and implementing appropriate nursing care plans. Therefore, comfort theory provides an effective framework to give a simple and holistic pattern for

identifying needs, creating interventions to meet those needs, and evaluating the effects of those interventions.

In comparison, all researchers have selected comfort theory for different reasons.(Parks et al., 2017);(Li & Huang, 2017);(Barros Ferreira et al., 2017); (Estridge et al., 2018) and (Nuraini et al., 2018) have chosen comfort theory as a conceptual framework to conceptualize variables in their studies. In contrast, comfort theory was employed as a template to assess and observe the level of comfort in (Parks et al., 2017) and (Li & Huang, 2017) studies. Additionally, the researcher's follow-up as a strategy to provide comfort during the patients, by the nursing team according to the assumptions of Katherine Kolcaba like (Barros Ferreira et al., 2017). This study focused for holistic comfort is the satisfaction of these three types of comfort in four contexts of patient experience: (1) physical context - physiological sensations; (2) psycho-spiritual context - patient's inner consciousness, self-esteem, and meaning of life; (3) environmental context - conditions of the all environment in which the patient lives and (4) socio-cultural context - interpersonal, family and social relations, including traditions and religious beliefs. However, (Estridge et al., 2018) used the domains of ease, relief, and transcendence comfort in physical, psychospiritual, environmental, and sociocultural contexts, also this study focused on Health-Seeking Behaviors inpatient: Internal& external Behaviors. On the other hand, (Nuraini et al., 2018) used the Kolcaba's theory because it is suitable to Indonesian context include the comfort interventions concept: (social, cultural, psychological, spiritual and physical environmental) and the result of this study completely support the comfort modeling theory a significant positive relationship between spirituality and emotional. Parks et al., (2017) study finding show a lack of significances and it is a partially supported the comfort theory, also (Estridge et al., 2018) study did not support the comfort modeling theory there is no significant relationship between the variables of comfort, while (Li & Huang, 2017) and (Barros Ferreira et al., 2017) studies completely supported the comfort theory propositions.

The available features of comfort theory are that its ability to guide the directions of studies, and its ability to help patients, people, and different groups of society to achieve comfort at all levels and help researchers to conceptualize their questions and organize the data. Comfort theory is applicable and flexible to be applied in different approaches, designs, purposes, settings, and age groups. (Table 1)

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**Table 1.** Summary of Studies That Utilized Comfort Theory

Summary of Findings	Reason for Kolcaba's Comfort	Concepts Used	Approach/ Design/ Sample	Objectives	Authors/ Years
The lack of significances in the level of comfort between psychiatric. In patients who received a warmed blanket and psychiatric In patients who did not receive a warmed	Kolcaba's comfort theory guided the study of the application of a warmed blanket to provide comfort during the hospitalization of Acute psychiatric patients.	Comfort (Relief, Ease, Transcendence) - Context Comfort(Physical, Psychospiritual, Environmental& Social) - Health Care Needs - Comfort Interventions	-Quantitative -A descriptive pilot study from a convenience sample of 37 psychiatric patients aged 18-59. -Kolcaba's verbal rating scale (VRS).	To assess the difference in the level of comfort between psychiatric inpatients who received a warmed blanket and psychiatric inpatients who did not receive a warmed blanket.	Parks et al., (2017)
A significantly improve the comfort indexes of patients and greatly reduce the incident rate of postoperative complications. In addition, the application of comfortable nursing in CNP can reduce nurse patient disputes.	The application of comfortable nursing in treating uterine fibroidcan effectively improve the therapeutic effect and makes great significance to the rehabilitation.	-Context Comfort (Physical, Psychospiritual, Environmental& Social) - Comfort Interventions	-Quantitative -Descriptive and reflexive report -60 patients were selected all applied with laparoscopic Surgery - Clinical nursing pathway CNP	To observe and analyze the effect of comfortable nursing in clinical nursing Pathway for patients having hysteromyomectomy.	Li & Huang., (2017)
Telephone contact, as a follow-up of patients, may be a good strategy for the identification of signs and symptoms resulting from antineoplastic chemotherapy and promotion of the strengthening of the professional-patient relationship	The application of comfort theory to improvement of the symptom, corroborating The importance of the guidelines through telephone contact as a tool to provide comfort to the patient	comfort context : "Relief in the Physical Context", "Transcendence in the Psycho-Spiritual and Physical Contexts" and "Tranquility In the Physical, Psycho-Spiritual and Sociocultural Contexts	quantitative-qualitative study  longitudinal, prospective  21 subjects, aged between 30 and 78 years	To monitor the adverse effects of antineoplastic chemotherapy in patients undergoing outpatient treatment through telephone follow-up as a strategy to provide comfort, according to the assumptions of Katherine Kolcaba	Barros Ferreira et al., (2017)
No significant relationship between the variable of comfort and adherence to fluid restrictions. However, this finding has potential to support clinical practice to minimize weight gain to sustain comfort	Comfort Theory using as a conceptual framework to suggests that increased comfort leads to health-seeking behaviors in the population receiving HD.	Health-Seeking Behaviors: Internal& external Behaviors	-Quantitative -Descriptive and correlational study - 51 patients receiving hemodialysis	To determine a potential relationship between comfort and fluid retention (a proxy for adherence) in adults with end stage renal disease receiving hemodialysis.	Estridge et al., (2018)
The results showed that palliative care significantly improved breast cancer patient comfort by reducing anxiety and depression  - Nurses play an essential role in providing spirituality-focused palliative care to Promote comfort in breast cancer patients in Indonesia.	Comfort Theoretical Modeling Study to suggest that palliative care affected patient discomfort through physical and emotional mediators, whereas spirituality affected patient discomfort through emotional mediators	Comfort Interventions:  (social, cultural, psychological, spiritual, physical environmental)	-Quantitative -Cross-Sectional Study  - 308 breast cancer patients from 3 referral hospitals in Jakarta, Indonesia	To develop a path model of the relationships between the variables of nursing care (information, emotional support, technical support, and palliative care), patient coping, family support, patient spirituality, and patient comfort expressed through physical and emotional mediators	Nuraini et al., (2018)