

CASE REPORT

Model Theory Development: Adaptation of Roy, Comfort Kolcaba, & The Andrews/Boyle Transcultural Interprofessional Practice in Breast Cancer Patients

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Article Info	Abstract
<p>Article History: Received: 2024-01-23 Revised: 2024-02-15 Accepted: 2024-03-30</p> <p>Keywords: Breast Cancer; Comfort Kolcaba; Roy's Adaptation; TIP</p> <p>Corresponding Author: Mery Eka Yaya Fujianti Department of Nursing, Faculty of Health Sciences, Universitas Nazhatut Thullab Al-Muafa Sampang, Indonesia</p> <p>Email: mery651997@gmail.com</p>	<p>Background Cancer treatment, including chemotherapy, often induces anxiety due to the uncertain prognosis and side effects. Integrating theories such as Roy's adaptation model, Comfort Kolcaba's theory, and The Andrews/Boyle</p> <p>Method The type of research used is research and development with a nursing care approach consisting of assessment, diagnosis, intervention, implementation and evaluation. The research subjects were outpatient breast cancer patients undergoing chemotherapy. The sample in this study consisted of one patient selected by accidental sampling and the data collection methods used were observation, questionnaires, interviews and patient medical records.</p> <p>Results The primary diagnosis—anxiety—was made based on the integration of the three theoretical models and research results, and the intervention—music therapy and manipulative therapy—was applied using theory and evidence-based practice. Health education about nutrition and diet is the intervention used to identify diarrhea. Patients with chronic wounds who have been diagnosed with skin and tissue integrity disorders are offered culturally-based education and nutrition, and those who struggle with inadequate health management are taught the value of family support. SW patients can overcome their challenges with the application of EBP, particularly with regard to cultural comfort and adaption.</p> <p>Conclusion The integration of Roy's adaptation model theory, Kolcaba Comfort, and The Andrews/Boyle Transcultural Interprofessional Practice (TIP) model is effective in helping patients to adapt culturally to the symptoms that arise due to chemotherapy so that cancer patients feel comfortable.</p>

Background

Breast cancer is a cancer that often occurs in women throughout the world (Akram et al., 2017; Sun et al., 2017). Breast cancer is a malignant tumor that develops in both or one breast in the form of a mass or lump that is hard, movable and irregular in shape. Breast cancer originates from glands, glandular ducts, and also breast supporting tissue that occurs in the lobules which function to channel breast milk to the nipple from the lobules (Irawan, 2018; Mustafa et al., 2016; Olfah et al., 2017). The occurrence of breast cancer is caused by damage to genes that play a role in regulating cell growth and differentiation, resulting in abnormal cell growth (Olfah et al., 2017).

The burden of cancer worldwide in 2020 based on GLOBOCAN cancer estimates developed by the International Agency for Research on Cancer (IARC), reached 19,292,789 cases with the highest cancer incidence being breast cancer at 2,261,419 (11.7%) (International Agency for Research on Cancer (IARC)/WHO, 2020). In 2021, WHO explained that the number of breast cancer sufferers in the world will reach 47.8% or almost half of all cancer patients. This shows that there is an increase in breast cancer cases from the previous year (Wahab et al., 2023). According to the World Health Organization (WHO), the most cancer cases in 2018 in Indonesia were breast cancer at 58,256 of all cancer cases (348,809) (Azmi et al., 2020; Utami & Muhartati, 2020) and increased in 2020 to 65,858 (16.6%) of the total cases of 396,914. Breast cancer cases all occur in women (International Agency for Research on Cancer (IARC)/WHO, 2021). In 2021, breast cancer in Indonesia ranks first compared to other cancers, namely 42.1 per 100,000 people. The incidence of breast cancer in Indonesia is also found to be increasing every year (Wahab et al., 2023). The incidence of cancer in East Java province in 2019 was found to be 0.5% (1,243) of women who were diagnosed with breast cancer (Dinkes Provinsi Jawa timur, 2020), whereas in 2020 it was found that 1.8% or 1,498 women were diagnosed with cancer, including cervical cancer and breast cancer (Health Office of East Java Province, 2021).

As cancer cases increase, health problems for cancer patients also increase. Therefore, more comprehensive treatment is needed, one of which is chemotherapy (Wulandari & Wahyunadi, 2019). Chemotherapy is a treatment that provides cytostatics to inhibit and also kill body cells that divide abnormally (Munawaroh, 2018). Chemotherapy drugs are unable to differentiate between cancer cells and normal cells which grow rapidly so that normal cells are also destroyed (Setiawan, 2015). The side effects that occur vary depending on the type of drug, dose of the drug, and length of therapy (Shinta R & Surarso, 2016). Apart from that, chemotherapy patients will also experience various kinds of changes related to aspects of life that affect physical, psychological, social and environmental health. This will certainly have an impact on the patient's quality of life (Nurhikmah et al., 2018).

Roy's adaptation model theory is a nursing theory that discusses the ability to adapt to the stressors faced. The hope is that patients will be able to improve their health and maintain adaptive behavior (Ambarwati, 2017). The presence of a stimulus that influences the individual causes the individual to carry out coping mechanisms so that output is produced in the form of adaptive or ineffective coping (Larasati et al., 2019). Besides that, breast cancer patients also experience discomfort so they need to be given nursing care. The application of the Kolcaba Comfort nursing theory helps nurses in meeting clients' basic needs related to comfort (Larasati et al., 2019). Comfort can be provided to breast cancer patients by providing interventions in the form of nursing actions that can provide a sense of security and comfort (Yamlean, 2021). Providing nursing care to breast cancer patients also needs to pay attention to the patient's culture. Therefore, in providing nursing care to patients, you can apply the theory of The Andrews/Boyle Transcultural Interprofessional Practice (TIP) Model, where this theory helps nurses and other care team members to carry out collaborative problem solving according to the patient's cultural needs (Andrews & Boyle, 2019).

This research aims to analyze the development of the theoretical model: Adaptation of Roy, Comfort Kolcaba, & The Andrews/Boyle Transcultural Interprofessional Practice (TIP) in medical surgical nursing care in breast cancer cases at RSUD dr. H. Moh. Anwar Sumenep.

Method

This type of research is research and development of Model Theory: Adaptation of Roy, Comfort Kolcaba, & The Andrews/Boyle Transcultural Interprofessional Practice in Breast Cancer Patients at RSUD dr. H. Moh. Anwar Sumenep. The approach used is a nursing care

approach which consists of assessment, diagnosis, intervention, implementation and evaluation. The research subjects were outpatient breast cancer patients undergoing chemotherapy. The sample in this study only consisted of one patient and the data collection methods used were observation, questionnaires, interviews and patient medical records.

Results

Case Description

Patient assessment, namely Mrs. SW, 44 years old, female, married, Muslim, last junior high school education, work as a housewife, diagnosis of left stage IV B mammary ca. The patient experienced menarche in the 4th grade of elementary school, was pregnant with her first child when the patient was 18 years old. year. The patient rarely exercised and used contraception for more than 5 years. The patient's mother had a history of cervical ca disease and persisted for 2 years. The patient came to the chemotherapy unit on November 20 2022 to undergo chemotherapy for the first time with complaints of a mass in the left breast. The mass had been there for 2 years, but the patient ignored it and did not go to the hospital for examination because he was afraid of surgery. Patients prefer to seek treatment from people who are considered religiously intelligent. Patients are given water to treat the disease. Currently the mass has increased to 20 cm in size and the wound looks lumpy and bleeds easily. The wound appeared to be bandaged with gauze and a plaster.

Based on the results of the psychological assessment, it was found that the patient's self-acceptance was low. Patients experience difficulty in adapting to the effects of the disease, feeling unwanted and worthless. The support provided by the family and medical support are in the good category. The family always accompanies the patient, provides attention, helps meet the patient's needs, provides instrumental support, provides information about the disease to the patient, and tries to always provide support to the patient both in terms of treatment and in everyday life. In the comfort assessment, it was found that patient comfort was moderate.

The results of the assessment are based on the integration of the three model theories, namely Roy Adaptation, Kolcaba Comfort, & The Andrews/Boyle Transcultural Interprofessional Practice regarding the context of psychopsychological comfort with the adaptation mode, namely the patient appears anxious. The patient said that he was anxious and wanted to see a doctor often. In the context of psychospiritual comfort with adaptation mode, it was found that patients reported nausea, vomiting and stomach pain. Every time food is entered, it is immediately vomited out for a few minutes so that the patient is afraid to eat. This was seen during the assessment where the patient did not want to eat because he was afraid of vomiting. In the context of physical comfort using adaptation mode, it was found that the patient reported diarrhea more than 3 times a day and was unable to hold urine and defecate. In the context of environmental comfort with the adaptation mode, the patient said that her left breast looked large, and in the context of comfort with the coping process, the patient said that she had difficulty in undergoing the care/treatment program due to lack of information.

Case Study

The intervention was carried out for 3 days. Before that, the researcher conducted a study first based on the integration of the three theoretical models, namely Roy Adaptation, Kolcaba Comfort, & The Andrews/Boyle Transcultural Interprofessional Practice. Management of nursing care will be carried out from 21 November 2022 to 23 November 2022. Based on the results of the assessment that has been carried out, the diagnoses that emerged in patients were anxiety, nausea, diarrhea, impaired skin/tissue integrity, and ineffective health management. The diagnosis of diarrhea was resolved after 2 days of intervention. Diagnoses of anxiety, nausea and ineffective health management could be resolved within 3 days of intervention,

while diagnoses of skin/tissue integrity disorders were only partially resolved during 3 days of intervention so further treatment was needed.

The interventions given for all diagnoses refer to SIKI and the application of EBP, while evaluations are carried out using SOAP. In diagnosing anxiety, the EBP applied is music therapy on the first day and Al-Qur'an murottal therapy on the second and third days to reduce anxiety in the patient. When diagnosing nausea, the intervention given is providing education regarding the use of ginger on the first day and performing acupressure on the second and third days to reduce complaints of nausea, vomiting and pain due to chemotherapy. When diagnosed with diarrhea, the intervention given is education regarding diet along with nutrition education and on the second day the patient is again given health education. When diagnosing skin/tissue integrity disorders, the intervention given is providing nutrition and culture-based education to patients with chronic wounds. The intervention given in the diagnosis of ineffective health management is providing education to the family regarding the importance of family support to make the patient's personal health management more effective.

Discussion

The assessment was carried out post chemotherapy day 2. Anxiety is the most common problem in cancer patients. This is due to uncertainty regarding the prognosis of the disease, the effectiveness of treatment in recovering the condition of cancer patients, especially in advanced stages (Simanullang, 2019). If cancer patients undergoing chemotherapy treatment previously experience stressful situations and do not use effective coping strategies, there is a possibility that anxiety will increase (Dewi, 2017). Other side effects are nausea and vomiting. Nausea and vomiting occur because chemotherapy drugs destroy cells in the digestive tract. Previous research results found that after undergoing chemotherapy in hospital, most said they experienced severe nausea and vomiting on the second and third days. Nausea and vomiting are caused by chemotherapy agents that stimulate enterochromaffin cells in the digestive tract to release serotonin thereby activating the vomiting center and causing an emetic response (Fatma et al., 2018).

Another complaint experienced by Mrs. SW is diarrhea. The side effect of diarrhea is usually experienced immediately after chemotherapy for up to three days. Administration of chemotherapy drugs causes changes in the composition of the normal flora in the intestine, resulting in absorption disorders involving the normal flora. In addition, there is damage to gastrointestinal cells, changes in intestinal motility and damage to the crypts (Faisel et al., 2017). Another problem found was damage to skin tissue. Mrs SW complained that there was a mass in her left breast. Massa has been around for 2 years, but Mrs. SW let it go and did not go to the hospital for examination because he was afraid of having an operation. Currently the mass has grown to 20 cm in size and the wound looks lumpy and bleeds easily. The wound appeared to be bandaged with gauze and a plaster.

This chronic condition will affect the patient's ability to meet physical and psychosocial needs. Therefore, patients must be able to adapt to changes in order to achieve balance (Andas et al., 2022). Roy's adaptation model theory emphasizes the patient's ability to adapt to changes in health through providing structured nursing care to provide comfort, relief and calm for patients biopsychosocially and spiritually, while Kolcaba's Comfort nursing theory can help nurses in meeting clients' basic needs related to comfort (Larasati et al., 2019). In general, comfort is the desired outcome of nursing care provided through the provision of interventions. Providing intervention can take the form of nursing actions that provide a sense of security and comfort (Dewi, 2021; Yamlean, 2021). In addition, providing nursing care to achieve comfort must pay attention to the patient's culture. The Andrews/Boyle Transcultural Interprofessional Practice

(TIP) Model theory can help nurses and other care team members to carry out collaborative problem solving according to the patient's cultural needs (Andrews & Boyle, 2019). Therefore, the integration of these three theories is very effective in helping breast cancer patients adapt to changes that occur by considering the patient's culture.

Anxiety is a problem that always arises in breast cancer patients. Anxiety becomes a focal stimulus for changes in client behavior. Physical and psychological conditions, focal environment and disease severity become contextual stimuli, while age and experience undergoing chemotherapy become residual stimuli (Purnamasari, Andas, et al., 2022). Adaptations must be made by the patient and family to prevent anxiety. This will help the patient's acceptance of the disease. Apart from that, you will have a good psychological condition so that your motivation and desire to recover will be higher and your quality of life will increase (Hidayat & Ati, 2019). One distraction technique to overcome anxiety is murottal Al-Qur'an therapy. Murottal Al Qur'an has a positive influence on its listeners, and the advantage of the Al-Qur'an is that it functions as a reminder of Allah so that it becomes part of spiritual therapy. Sound (audio) in the form of beautiful harmonized music enters the ear and vibrates the eardrum so that the fluid in the inner ear is shaken. And the hair cells in the cochlea will vibrate, then imagination of beauty is created in the right brain and brain through the cochlear nerve, thereby creating comfort and changing feelings to become calmer and more relaxed (Saputri, 2018).

Murottal Al-Qur'an therapy creates a feeling of calm and relaxation, thereby creating comfort. Kolcaba created a theory known as comfort theory. Comfort can be defined as assistance provided to strengthen, entertain, and overcome difficulties, feelings of relief, and also experiences of satisfaction or pleasure (Parks et al., 2017; Puchi et al., 2018). Anxiety in breast cancer patients is included in psychospiritual comfort problems. Psychospiritual comfort includes self-awareness including self-identity, self-esteem, sexuality, meaning of life, and also relationships with other living creatures (Parks et al., 2017). To Mrs. SW murottal therapy is given for 10-15 minutes, given intervention at every meeting (Yuliani et al., 2018). Murottal therapy can help promote specific changes in the body both physiologically and psychologically. Murottal with its regular rhythm, slow tempo, soft, full of emotion, and correct way of reading is able to provide peace of mind, thereby minimizing anxiety and causing a relaxation response. In cancer patients, spirituality is very useful for maintaining self-esteem, increasing the meaning and purpose of life, providing emotional comfort and providing hope for life. Therefore, murottal therapy is effective in reducing anxiety by providing a relaxing and comforting effect (Risnawati et al., 2022).

Besides that, music therapy is also effective in reducing anxiety in breast cancer patients. Results of research conducted by Wurjatmiko (2019) found that music therapy was effective in reducing pain and anxiety levels in cancer patients. Giving music intervention to patients is carried out for 15 minutes at each meeting using an MP3 player (İnangil et al., 2020). In line with research that has been conducted, music therapy has been proven to be able to influence three of the four comfort contexts, including physical, psychological and environmental contexts. In a physical context, music therapy can relieve symptoms such as pain, fatigue, lethargy, nausea, feeling unwell, and decreased appetite, while in a psychological context it can reduce anxiety, improve sleep quality, and increase feelings of calm. In an environmental context, music can change or control the environment so that the chemotherapy process runs more calmly or relaxed (Bilgiç & Acaroğlu, 2016; Compton et al., 2021).

The patient's adaptation process to the symptoms experienced during chemotherapy also influences the incidence of nausea and vomiting. Symptoms of nausea can be treated using

acupressure therapy. Acupressure therapy is a touch therapy that utilizes the principles of acupuncture and Chinese medicine (Fatma et al., 2018). The acupressure point used is P6 (Neiguan). Point P6 is located anterior to the wrist between the tendons of the flexor carpyradialis longus palmaris. The benefit obtained is that there is an increase in energy in the gastric meridian which can strengthen the cells of the digestive tract against the effects of chemotherapy thereby reducing the stimulation of nausea and vomiting to the vomiting center in the medulla oblongata. In addition, the ST36 (Zusanli) point is located in the area 4 fingers below the patella and 1 finger lateral to the crest of the tibia. This point functions to suppress diseases related to the stomach such as nausea, vomiting, diarrhea and epigastric pain. The application of acupressure is effective in preventing vomiting and has a better effect on the intensity of nausea and can increase comfort in cancer patients (Fatma et al., 2018; Indrayanti et al., 2022).

Based on research results and systematic reviews, ginger essential oil is also effective in reducing nausea and vomiting (Totmaj et al., 2019). The combination of ginger essential oil and acupressure was also found to be effective in reducing nausea, vomiting, anorexia, and increasing comfort in cancer patients. Ginger essential oil is responsible for stimulating olfactory receptors which then influences the limbic system to stimulate the hypothalamus which is catalyzed into neuroserotogenesis in the digestive organs. This causes the gastrointestinal system to produce an anti-emetic effect. Acupressure therapy functions to balance energy in the body so that it becomes more optimal and functions well. PC6 point acupressure therapy is performed on the wrist for 30 seconds - 2 minutes. Acupressure has a very fast effect, acupressure at this point increases the release of beta-endorphins and ACTH, while inhibiting the vomiting center (Sukartini et al., 2020).

In the case of Mrs. SW, the physical comfort needed by patients is reducing nausea, diarrhea, and problems with damage to skin/tissue integrity. Diarrhea problems can be overcome by providing dietary interventions along with nutritional education. The associated diet consisted of 12-15% protein calories, 30-35% fat, and 55-60% carbohydrates estimated individually based on the participant's current age, weight, and height (Purnamasari, et al., 2022). Dietary education may result in higher chemotherapy compliance rates thereby significantly reducing the number of patients who are unable to complete scheduled chemotherapy due to intolerable side effects. In nutrition education, the recommended nutrition to reduce diarrhea is to eat small portions frequently, consume clear fluids (water, thin herbal tea, apple juice, clear broth, frozen pops), eat foods high in pectin which contain water-soluble fiber such as applesauce, bananas, and yogurt, and consume foods rich in potassium and sodium (Abdollahi et al., 2019).

The problem of damage to skin/tissue integrity can be overcome by providing nutrition and culture-based education to sufferers of chronic wounds, including cancer. Problems that are often encountered in the wound healing process are community traditions related to culture. One of them is the tradition in Malay society, where the culture does not allow someone with a wound to consume foods high in protein (chicken, seafood, eggs, etc.) because it is feared that the wound will not heal quickly and will also cause itching in the wound. Even though foods high in protein really help speed up the wound healing process. Therefore, knowledge that is wrong and also contrary to health must be given immediate intervention. The hope is that people can understand that nutrition is very important in the wound healing process and without going against culture. This intervention was provided with the aim of increasing respondents' knowledge and attitudes about nutrition in the wound healing process (Huda et al., 2018).

The problem of ineffective health management can be overcome by providing family support to make breast cancer patients' self-health management more effective. The family has a main task, namely the physical maintenance of the family and its members. Therefore, the family is responsible for all sick family members by looking after their family members. Individuals and families who engage in self-management behaviors will improve their health outcomes (Mella et al., 2016). Family support and efforts to make adaptive coping influence the process of adapting to the disease and the negative perceptions that exist in the patient's thinking (Rosaline et al., 2017). If the support provided by the family is good, the patient will easily adapt to the disease, and vice versa. The form of support provided by the family is not only in the form of suggestions, advice or support, but can be in the form of real actions such as controlling, scheduling and accompanying the patient (Afiyah, 2017). The family is part of the interprofessional health care team so that the family can help carry out collaborative problem solving according to the patient's cultural needs (Andrews & Boyle, 2019).

Conclusion

The most common treatment for breast cancer patients is chemotherapy. There are various side effects of chemotherapy, so nurses need to provide quality nursing care to deal with the symptoms that appear. The application of Roy's adaptation model theory, Kolcaba Comfort, and The Andrews/Boyle Transcultural Interprofessional Practice (TIP) Model can help patients adapt to the symptoms that arise due to chemotherapy so that cancer patients feel comfortable. In addition, a cultural approach can help nurses and other care team members to engage in collaborative problem solving according to the patient's cultural needs. Nurses' cross-cultural knowledge and skills are very helpful in carrying out nursing training, where nurses must be able to analyze the patient's culture in order to foster therapeutic communication with the patient and family.

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