



Theory Guided Practices: An Approach to Better Nursing Care through Roy Adaptation Model

Santosh Kumar¹, Rafat Jan², Salma Rattani³, Adnan Yaqoob⁴

¹Assistant Professor and Doctor of Philosophy Scholar, Jinnah Sindh Medical University, Institute of Nursing, Karachi, Pakistan and Aga Khan University- Faculty of Health Sciences, Karachi, Pakistan; ²Professor and Associate Dean, Global Outreach and Policy Unit and Aga Khan University- School of Nursing and Midwifery, Karachi, Pakistan; ³Assistant Professor, Aga Khan University- School of Nursing and Midwifery, Karachi, Pakistan; ⁴Assistant Professor and Doctor of Philosophy Scholar, Lahore School of Nursing – The University of Lahore, Lahore and Aga Khan University- Faculty of Health Sciences, Karachi, Pakistan.

ABSTRACT

Introduction: The nursing discipline is considered an integral part of the health care delivery system. Effective nursing practice needs the application of knowledge, skills, critical thinking, and art of care in an efficient, effective, and considerate method. This can be achieved through an amalgamation of understanding, practice, and nursing theories. The theory provides a logical way to organize for and give direction to nursing care. Theory-guided nursing practices act as a fundamental framework for the development of proactive and organized nursing care that assist to improve quality nursing care.

Aim: The paper aims to elaborate on the theory-guided nursing practice by utilization of the Roy Adaptation Model in the clinical setup for delivering effective nursing care.

Methodology: This paper will illustrate the case study of a breast cancer patient and the application of Sister Calista Roy's Adaptation Model into nursing practice and the nursing process.

Discussion: Theory-guided assessment, nursing care, and interventions provide the foundation for the development of suitable and meaningful nursing practices. Theories and models provide a basis for quality nursing practices and are considered a vital component of patient, family, and community care.

Conclusion: The theory-guided practices are more efficient and possess better control over the outcome of nursing care through a purposeful and systematic approach.

Key Words: Nursing Theory, Roy Adaptation Model, Clinical Practices, Theory-based Nursing Practices, Breast Cancer, Evidence-based Nursing, Theory Implication

INTRODUCTION

The legitimacy of any profession is built on its ability to utilize existing knowledge and application of theory into practice. The nursing knowledge, clinical practices, and theories are considered cornerstones of the discipline and the relationship among these is cyclical and reciprocal.¹ The nursing knowledge guides our actions and clinical practices and also generates information that becomes the basis for further research. In addition to that, the theory provides the foundational concepts that enable the nurses to direct their actions while providing patient care.²

The nursing theory or model-based clinical approaches assist the nurses to take better, proficient, and quality clinical decisions through utilizing the theory concepts that in a turn

become a base for evidence-based nursing.³ Likewise, evidence-based nursing care makes us think over epistemological and methodological references on which the clinical practices are based. The nursing theories establish the guidelines from specific to broad nursing practices.⁴ The application of these is essential and cannot be separated from standardized nursing care. However, literature depicts that the integration of practice, knowledge, and theory is rarely seen and varies from context to context.⁵

The Nursing profession aims to produce knowledgeable, competent, and autonomous nurses that can provide quality care in any situation irrespective of physical setting whether it be hospital, community, or home.⁶ Moreover, an effective clinical practice necessitates the application of understanding, skills, critical thinking, and art of care in a proficient, ef-

Corresponding Author:

Santosh Kumar, Jinnah Sindh Medical University, Institute of Nursing, Rafiqi H.J Shaheed Road, Cantonment, Karachi, Pakistan.
Contact: +92 333-3267825; ORCID ID: <https://orcid.org/0000-0002-9002-254X>; Email: santoshkumarpak@gmail.com

ISSN: 2231-2196 (Print)

ISSN: 0975-5241 (Online)

Received: 22.04.2022

Revised: 24.05.2022

Accepted: 12.06.2022

Published: 20.07.2022

fective, and thoughtful method.⁷ This can be attained through a combination of knowledge, practice, and theories in nursing.

In an era of modernization, the escalating statistics of both communicable and non-communicable diseases are also increasing the burden on the health care delivery system which in turn is most likely to compromise the care components. In such a scenario, quality nursing care can be helpful to achieve early health outcomes and better results. The theory-guided practices can bring a better positive outcome, better health, and an overall increased health care quality. This also can eliminate the gap between nursing knowledge implementation and clinical practices. Among the different nursing theories and models, Sister Calista Roy's Adaptation Model (RAM) is the most commonly used conceptual framework that guides nursing practices, and research that fosters knowledge. The model is known for its holistic approach to human beings. This paper will elaborate on the utilization of RAM in clinical practices for caring the women with breast cancer.

LITERATURE REVIEW

Biographical Sketch of the Nurse Theorist

Sister Callista Roy is recognized as a prominent nurse theorist. Before her retirement in 2017, she served as a nursing professor at Boston College, United States. She has performed in numerous roles namely a writer, a researcher, a teacher, and a member of a religious community. Roy started her career as a pantry worker at a large hospital situated in the United States. Later, she switched to a maid and later, became a nurse aid. She secured her Bachelor of Arts degree with a major in nursing at Mount St. Mary's College, Los Angeles. Thereafter, she did a Master's degree in Paediatric Nursing at the University of California, Los Angeles. Dr. Roy did Ph.D. in Sociology in 1977 and finally her highest qualification is a post-doctorate in neuroscience from the University of California, San Francisco.

Based on Dr. Roy's outstanding contribution to the nursing profession, she was honoured as a living legend by both, The American Academy of Nursing and the Massachusetts Association of Registered Nurses. Moreover, she received Martha Rogers Award for advancing nursing science and The Sigma Theta Tau International Founders Award for contributions to professional practice.

Concepts of Roy Adaptations Model (RAM)

The model portrays the person as a bio-psycho-social being and is considered as a holistic adaptive system being in constant interaction with the changing internal and external environment. To cope with the changing stimuli, the person

uses innate and acquired mechanisms which are biological, social, or psychological in origin. The goal of nursing is to foster adaptation.⁸ The adaptation leads to optimal health and wellbeing, quality of life, and death with dignity.⁹ The person has four modes of adaptation such as physiologic needs, self-concept, role function, and inter-dependencies described in Figure 01.

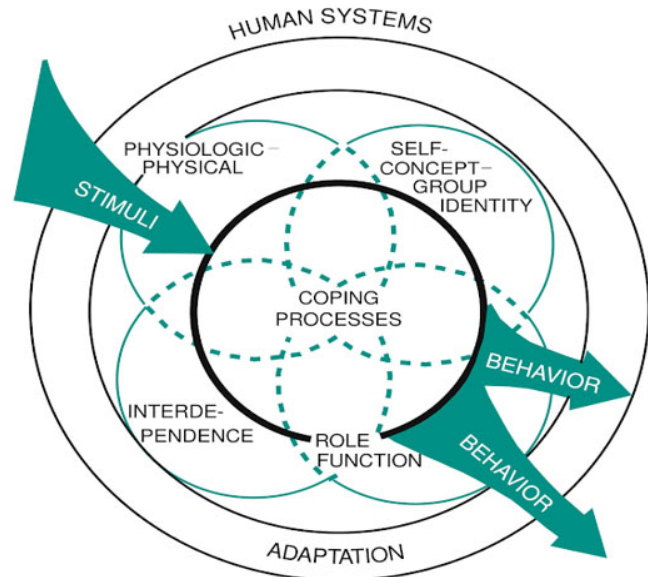


Figure 1: Sister Calista Roy Adaptation Model: Diagram of Human Adaptive System.

The behaviour in the physiological mode is the manifestation of the physiological activities of the human body such as oxygenation, nutrition, sleep and rest, protection, and activities. The self-concept mode deals with the person's feelings and beliefs in terms of body sensation, image, personal, and moral-ethical-spiritual self. The role function involves the position an individual occupies in family, society, or organization. Interdependence is linked to a person's relationship and interaction with others. It is about sharing, receiving, and giving respect, love, and value. The theory also enlightens the stimuli which are the factors that affect the person in any way. Those three stimuli linked with adaptation are focal, residual, and conceptual.

DISCUSSION

Case Scenario

Miss Boota (Pseudo name), a 36-years old married woman, got admitted to the hospital and was diagnosed with stage II breast cancer. She was a mother of two children and lived in a joint family in a small house in Karachi, Pakistan. Ms. Boota was a receptionist by profession in a private company and resigned recently from her job due to her ill health. The

disease she was diagnosed with, had brought a lot of change to her mind and body.

During an interview with the nurse, Ms. Boota verbalized that she perceives herself as an unlucky person because of this breast cancer and feels guilty because of not properly carrying out her roles as a mother and a wife. She added that earlier she considered herself a proud woman with a sound job and a perfectly balanced family, but now, circumstances aren't in her favour. Her dependency on others for care, her altered body image accompanied by breast swelling and discharge, her inability to sleep well, and most importantly, her refusal of surgery because of unprecedented outcomes have made her lose her pride, confidence, and independence. Also, when the patient's sister was asked about the patient's socialization, it was identified that patient has lost her interest to engage in any sort of gatherings and activities. Furthermore, she is least interested in taking care of herself. She denies taking foods and juices, has discontinued praying, and prefers living isolated. In other terms, she feels that her life is now ended.

Breast Cancer and its Burden

Breast cancer is a metastatic neoplasm and is considered the most common cancer among women.¹⁰ The literature depicts that since 2008, there is more than a 20% enhancement in breast cancer cases, and the statistics of 2020 depict that approximately 2.3 million women are diagnosed with breast cancer globally.¹¹ The development of breast cancer among women mostly occurs in their forties and it is more prevalent among the women of the developing world as compared to developed nations.¹² Currently, in the last few decades, the prevalence of breast cancer is getting high around the world but it is disproportionately affecting the Asian countries rapidly.¹³ Research has also highlighted that Pakistan is having a high rate of breast cancer in comparison to other Asian countries¹⁴, whereby one in every nine women in Pakistan has a lifetime risk of developing breast cancer.¹³

Women diagnosed with breast cancer have an increased burden and face complex problems.¹⁵ The disease leads to certain physiological, psychological, and social distress due to fear of death, a feeling of societal devaluation, and functional disabilities.¹⁶ Besides, patients may suffer anxiety, depression, altered self-image, and other mental and emotional alterations.¹⁷ Women with breast cancer may have compromised quality of life and need attention, proper treatment, and quality care to adjust to this traumatic event and overcome this distressing situation.¹⁸

ANALYSIS

The conditions and findings of the above client's case reveal that getting diagnosed with having breast cancer is so pain-

ful and leads to multiple problems. Individuals with breast cancer require to adapt to these complex changes and require supportive care from family, society, and professionals such as nurses, doctors, and others.¹⁹⁻²⁰ Among all medical professionals, nurses act on the front in the health care provision and are in a true sense, the backbone of the healthcare system who can bring better health outcomes with their quality nursing care.²¹

Referring to the case, nurses can play a major role to help patients to cope with their altered conditions through quality care and theory-based practices. However, the usefulness of theory-guided practices is being under looked. Despite the fact which endorses that theory-guided practices will generate esoteric expertise and eclectic pragmatism for better patient service, the traditional practice methods are being followed frequently.²² This paper will center on nurses' roles, clinical practices based on the RAM, and analysis of the theory-guided nursing practices.

The RAM is a nursing theory-based model which is considered appropriate to be implemented on every patient in a clinical setup. The application of the RAM brought a positive change in nursing care and assists the clients and families to adopt the changes as a result of the disease.²³ RAM consists of two phases of assessments, mode adaptation, and stimuli. This analysis will cover step-wise incorporation of the RAM model into clinical practice for a particular case of the woman with breast cancer, followed by diagnosis, planning, implementation, and evaluation.

Phases of Assessment

Physiological: According to the RAM, the first phase of the assessment is physiological adaptation consisting of oxygenation, nutrition, protection, rest and sleep, fluid and electrolytes, and neurological and endocrine functions.⁹ The majority of clients with breast cancer have lumps, swelling, and discharge from the breasts.¹⁶ The general assessment in the above case found that client had symptoms of swelling and discharge. On the other hand, nutrition, fluid electrolytes, and the rest-sleep concept were also affected as the patient denied taking fruits and juices and complained about sleep disturbance. However, the client did not have problems with oxygenation, protection, and neurological and endocrine functions.

Self-Concept: The self-concept focuses on the personal self-image and spiritual-social-moral impressions.⁹ The literature documents that individuals with breast cancer feel anxious and sad due to disease, surgery, disturbed body image, and their perception of the bad prognosis of the disease. In addition, patients also have bad perceptions about themselves. They blame themselves and consider the disease as a curse from God.²³ In the above case, the patient had a disturbed self-concept in terms of feeling guilty, loss of pride, dis-

turbed body image due to illness, and affected spiritual concept due to discontinuation of prayers.

Role Functions: It is the role and position that an individual possesses in the family, friends, society, and institutions.²⁴ Referring to the above case, the client had lost her interest to get involved in any sort of gatherings and activities since the time she is diagnosed with breast cancer. Moreover, the client could no longer efficiently carry out her roles as a wife and a mother because of the disease. In addition, resignation from the job and isolation are other factors to be considered.

Interdependence: Interdependence includes relationships with others that are meaningful to others and the support system.²⁵ The above scenario depicts that since the client is unemployed now, she is largely dependent on her husband and family.

The second phase of assessment in the RAM is the stimuli. The focal stimuli create a direct response and immediately confront the person.²⁵ In the above case, the fear of outcomes associated with surgery coupled with disturbed body image,

guilt, and worries have an adverse impact on her overall being. The contextual stimuli are all the other factors that contribute to the behaviour caused by focal stimuli.¹⁶ This includes complaints such as breast swelling and discharges and the dependency on others for survival needs. Apart from these, residual stimuli are not obvious or maybe present in sub-conscious such as beliefs and thoughts as the client said that she is unfortunate and the disease is a curse from God.²⁶

Based on the assessment findings as per the RAM theory, a diverse nursing diagnosis was developed such as in Table 01. The diagnosis discourses her clinical conditions which need to be addressed with short and long-term goals. The main focus of the planning is to deal with all the needs of the client, facilitate adoption changes, and provide efficient and effective nursing care. Therefore, in this regard, the nursing interventions are directed to focus on theory-based clinical practices. This RAM-based nursing implementation assists in manipulating the focal, contextual, and residual stimuli and focusing on the adaptation.

Table 1: Implication of Roy Adaptation Model in Clinical Care

Modes of Adaptation	Assessment Findings	Nursing Diagnosis	Intervention
Physiological	Denying Food & Juices Altered Sleep Swelling and Discharge in Breast Changes in Body & Mind	Altered nutrition: less than body requirements related to reduced desire to eat. Sleep deprivation is related to the fear of the outcome of the disease and the environment.	Promote nutrition and healthy food habits by encouraging the client to make appropriate dietary choices. Educate the patient regarding sleep-enhancing techniques. Adjust the environment (e.g., light, noise, temperature, mattress, and bed) to promote sleep.
Self-Concept	Feeling anxious and guilty Disturbed body image Discontinued prayers Lost her pride	Fear/Anxiety related to the diagnosis of breast cancer. Anticipatory grief is related to the anticipated loss of physiological well-being. Body image disturbance Situational low self-esteem	Teach the client coping strategies such as deep breathing to promote relaxation which in turn helps to decrease the level of anxiety and fear. Provide an atmosphere of acceptance, frequent patient contact, and encouragement in illness adjustment. Promote positive body image and encourage grooming activities.
Role Functions	Disturbed role as wife & mother Isolated - lost interest in gatherings and activities Resigned from job	Social Isolation Spiritual distress is related to an inability to participate in prayers.	Give positive reinforcement for voluntary interaction with others. Involve in daily life activities and help the patient to choose activities that require social involvement. Encourage social interaction with people of the same interests during hospitalization. Involve the patient in spiritual activities.
Interdependence	Dependent on husband & family	Risk for altered family process related to disturbed role performance.	Involve the patient in planning care and treatment Provide reassurance and comfort measures.

The nursing care was provided as shown in Table 01 which had surmounted the client's trouble and helped her regain value in her life. The desired outcome was achieved which was evaluated by assessing the client's adaptive behaviours.

This case was an example to integrate the theory into practices that how theory guides nursing practices. Applying theory proves useful to help clients in adapting and accepting effects that occur due to disease and stressors. Theory-based

nursing care can positively change the lives of clients, families, and communities in addition to healthcare practices and the health system.

Importance of the Theory Implication in the Nursing Care

The implication of theory in the profession of nursing improves practice by positively influencing the health and qual-

ity of life of patients. Theories provide the nurses with a way to view phenomena.⁷ Moreover, theory-guided practices also allow nurses to focus on important information while setting aside insignificant data. The health discipline and nurses need a theoretical perspective to evaluate the client's situations and thus serve as a vehicle for them to understand and implement nursing care.²⁷ Over the last few years, numerous nursing scholars have tried to include the trinity of health, disease, and wellness aspects of care in models and nursing theories. These nursing theories and models were intended to provide a platform for evidence-based research, guide practices, and strengthen knowledge.³ However, in reality, theory-guided nursing care is not practiced usually.

The nursing practice and theory cannot be separated as quality care says "nursing practice must first be guided by theory, and then the theory can be studied and further developed as a result of expert practice".²⁸ Therefore, the nurses should guide their practices and comprehensive care through the lens of theories and nursing models so that the care provided can be optimal.

CONCLUSION

The theory-based nursing practices provide a platform to organize the patients' data in a logical method and guide nurses to plan care accurately and proactively. Furthermore, the theory-based assessment, practices, and guidelines provide the foundation for the development of suitable, meaningful nursing interventions. This case study and analysis have proven the benefits of the theory in nursing care. By reflecting upon the benefits, it is recommended that the health care system must ensure the practices of theories in nursing practice within the organizations. Moreover, the theories are useful and give directions to nursing practices. Through theory-based clinical approaches, nurses can practice systematically and purposefully which results in efficient nursing care with better health outcomes.

ACKNOWLEDGMENT

The authors would like to acknowledge the Faculty of Health Sciences (FHS) and School of Nursing and Midwifery (SONAM) – Aga Khan University (AKU), Karachi for their support and valuable feedback. Moreover, the authors acknowledge the immense help received from the scholars whose articles are cited and included in references of this manuscript. The authors are also grateful to the authors/editors/publishers of all those articles, journals, and books from where the literature for this article has been reviewed and discussed.

SOURCE OF FUNDING

This paper received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

CONFLICT OF INTEREST

All the authors of the paper declare that there is no conflict of interest.

Ethical Clearance Letter and Informed Consent

Ethical approval does not apply to this study. Moreover, informed consent is not required for such types of articles.

Authors' Contribution

Concept and Design	RJ and SR
Manuscript Writing	SK
Analysis and interpretation	SK and AY
Critical revision of the article	SK, RJ, SR, and AY
Proofreading	SK and AY
Final approval of the article	SK, RJ, SR, and AY

REFERENCES

1. Saifan A, Devadas B, Daradkeh F, Abdel-Fattah H, Aljabery M, Michael LM. Solutions to bridge the theory-practice gap in nursing education in the UAE: a qualitative study. *BMC Med Educ.* 2021;21(1):1-11.
2. Allan H, Evans K. Reintegrating theory and practice in nursing: Knowledge and theories of practice learning. *Routledge International Handbook of Nurse Education: Routledge;* 2019. p. 130-47.
3. Kongsuwan W. Development of the Emergent Theory of Aesthetic Nursing Practice (AesNURP). *Health.* 2020;12(7):764-80.
4. Hickman Jr RL. Nursing Theory and Research: The Path Forward. *J Adv Nurs.* 2019;42(1):85-6.
5. Ahtisham Y, Jacoline S. Integrating Nursing Theory and Process into Practice; Virginia's Henderson Need Theory. *Int J Caring Sci.* 2015;8(2).
6. Osorio-Castaño JH. Promotion and enhancement of knowledge in nursing. *Invest Educ Enferm.* 2018;36(1).
7. Shoghi M, Sajadi M, Oskuie F, Dehnad A, Borimnejad L. Strategies for bridging the theory-practice gap from the perspective of nursing experts. *Heliyon.* 2019;5(9):e02503.
8. Jennings KM. The Roy adaptation model: a theoretical framework for nurses providing care to individuals with anorexia nervosa. *ANS Adv Nurs Sci.* 2017;40(4):370.
9. ShariatPanahi S, Farahani MA, Raffi F, Rassouli M, Tehrani FJ. Application of Roy adaptation model on adherence to treatment in patients with heart failure. *Revista Latinoamericana de Hipertensión.* 2020;15(2):128-37.
10. Al Zahrani AM, Alalawi Y, Yagoub U, Saud N, Siddig K. Quality of life of women with breast cancer undergoing treatment and follow-up at King Salman Armed Forces Hospital in Tabuk, Saudi Arabia. *Breast Cancer: Targets and Therapy.* 2019;11:199.
11. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN es-

- timates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: CA Cancer J Clin.* 2021;71(3):209-49.
12. Lima SM, Kehm RD, Terry MB. Global breast cancer incidence and mortality trends by region, age-groups, and fertility patterns. *EClinicalMedicine.* 2021;38:100985.
13. Zaheer S, Shah N, Maqbool SA, Soomro NM. Estimates of past and future time trends in age-specific breast cancer incidence among women in Karachi, Pakistan: 2004–2025. *BMC public health.* 2019;19(1):1-9.
14. Ahmad S, Ur Rehman S, Iqbal A, Farooq RK, Shahid A, Ullah MI. Breast Cancer Research in Pakistan: A Bibliometric Analysis. *SAGE Open.* 2021;11(3):21582440211046934.
15. Ghazi H, Baobaid MF, Hasan TN, Pillai PM, Hassan MR, Wen HY. Awareness And Belief Regarding Breast Cancer Among Women Living In Selangor, Malaysia. *Malaysian Journal of Public Health Medicine.* 2020;20(1):30-9.
16. Iddrisu M, Aziato L, Dedey F. Psychological and physical effects of breast cancer diagnosis and treatment on young Ghanaian women: a qualitative study. *BMC psychiatry.* 2020;20(1):1-9.
17. Martino ML, Lemmo D, Gargiulo A. A review of the psychological impact of breast cancer in women below 50 years old. *Health Care Women Int.* 2021;42(7-9):1066-85.
18. Gabra RH, Hashem DF. Sleep disorders and their relationship to other psychiatric disorders in women with breast cancer: a case-control study. *Middle East Current Psychiatry.* 2021;28(1):1-9.
19. Goerling U, Bergelt C, Müller V, Mehnert-Theuerkauf A. Psychosocial distress in women with breast cancer and their partners and its impact on supportive care needs in partners. *Front Psychol.* 2020;11.
20. Peixoto TAdSM, Peixoto NMdSM, Pinto CAS, Santos CS-VdB. Nursing strategies to support psychological adaptation in adult cancer patients: a scoping review. *Rev Esc Enferm USP.* 2021;55.
21. Cutler DM. Nursing Our Way to Better Health. *JAMA.* 2019;322(11):1033-4.
22. Younas A, Quennell S. Usefulness of nursing theory-guided practice: An integrative review. *Scand J Caring Sci.* 2019;33(3):540-55.
23. Maryati I, Sukmawati S, Mamuroh L. The Application Of" Roy Adaptation" Theory Model In Women With Early Stage Of Cervical Cancer: A Study Case. *Journal of Maternity Care and Reproductive Health.* 2018;1(2).
24. Ursavas FE, Karayurt Ö. Effects of a Roy's Adaptation Model-Guided Support Group Intervention on Sexual Adjustment, Body Image, and Perceived Social Support in Women With Breast Cancer. *Cancer Nurs.* 2021;44(6):E382-E94.
25. Russo SA. Development and Psychometric Analysis of the Roy Adaptation Modes Scale (RAMS) to Measure Coping and Adaptation: City University of New York; 2019.
26. Callis AMB. Application of the Roy Adaptation Theory to a care program for nurses. *Appl Nurs Res.* 2020;56:151340.
27. Jackson KQ. Linking nursing theory to nursing practice using the Chapelhow Framework: A case study. *Links to Health and Social Care.* 2018 May 29;3(1):12-25.
28. Parker ME. Theory and practice: a conversation with Marilyn E. Parker. Interview by Jacqueline Fawcett. *Nurs Sci Q.* 2003;16(2):131-6.