

ORIGINAL ARTICLE

Medical and surgical nurses' knowledge of continuity of care

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ABSTRACT

Introduction: Nurses play a significant role in implementing continuity of care to reduce readmission risk. Nurses' knowledge about continuity of care is essential to ensure that continuity of care occurs consistently. **Objectives:** This study aims to determine nurses' knowledge about continuity of care. **Methods:** This study used a descriptive research design. The study sample comprised 95 nurses in the medical and surgical inpatient room of Arifin Achmad Hospital, who were selected using the total sampling technique. The study variables include nurses' knowledge about continuity of care measured using a questionnaire developed by the researcher and used after validity testing. The data analysis employed for this study was descriptive analysis, which represents data in frequency and percentage. **Results:** The findings of this study depict that respondents' age mainly was at 19-44 years (87,4%), most of the respondents were female (78,9%), most with a diploma of nursing education background (50,5%), working experience more than 12 years (51,6%), and the majority of respondents had sufficient knowledge about continuity of care (68,4%). **Conclusions:** Nurses' knowledge of continuing care found in this study is adequate. These findings provide an overview of nurses' potential contribution and readiness to implement continuity of care to reduce the readmission rate. The implications of nursing knowledge on continuing care in practice will provide comprehensive and coordinated care to improve the quality of care that can improve patient's quality of life.

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1. Introduction

The contribution of nurses as health practitioners in health services institutions, such as hospitals, is essential. As a healthcare institution, hospitals should always provide quality services to patients. Adequate, up-to-date and valid health facilities must support quality health services. To meet patients' health needs and preferences, they must also focus on the patient care process, such as Continuity of Care. Continuity of Care is part of consistently connected health care (Säfström et al., 2020).

The World Health Organization recently defined continuous care as a set of patient health treatments that are coherently and interconnected over time and consistently tailored to the patient's health needs and preferences (Santos et al., 2022). Hull, Williams, Schofield, Boomla, & Ashworth (2022) stated that long-term continuing care would be effective if there is lower mortality, fewer hospitalizations, better care for chronic diseases and greater patient satisfaction. In addition, according to research, Wensing, Szecsenyi, and Laux (2021) also state that higher continuity of care is associated with decreased hospitalizations and healthcare costs. To support continuing care, doctors and nurses play an essential role, as information provided by doctors and nurses, such as advice, knowledge, and instructions, helps patients recognize and overcome the health problems they face effectively (Usman et al., 2020).

Continuing care can extend nursing work from the hospital to the home, freeing up the professional nursing process that was once confined to the hospital. Even if the patient is discharged, the nursing staff will still provide continuous care according to the patient's actual

needs (Zhang et al., 2022). Continuing care also helps to improve patient medication adherence, reduce side effects, increase patient satisfaction with treatment and improve the harmonious relationship between health workers and patients (Pierre et al., 2019).

Continuing care also positively impacts nursing with lower mortality rates, fewer hospitalizations, better care for chronic illnesses, and greater patient satisfaction. Continuous care requires sufficient knowledge from nurses. This knowledge is vital so that nurses can create effective care for patients. To achieve progress in care, nurses must learn the needs of patients and implement appropriate strategies to improve the care process. In other words, nurses must understand the patient's health condition well and how to evaluate, plan and implement appropriate care. From this, nurses can help ensure patients receive the best care and achieve optimal recovery (Garcia et al., 2021).

Understanding continuity of care as coherent, connected and consistent with the needs of patients and their families requires a strategic design that considers the three dimensions of continuity of care and maintains a hierarchical relationship. These dimensions are: 1) The relational dimension refers to the interaction between professionals, patients, and their families over time. 2) The informational dimension, meaning the use and transmission of information. 3) Managerial dimension, related to the coordination between professional services (García-Vivar et al., 2022).

Given that continuous care should always be associated with improving patients' quality of life, especially those suffering from chronic diseases Alyafei & Marri, (2020). In this case, nurses must understand the proper care for these patients in reducing infection rates and empowering patients. Therefore, this study examines nurses' knowledge about continuity of care. This research will enrich information in determining changes in nursing practice policies regarding the understanding of continuous care in the development of nursing science for hospitals to explore nurses' knowledge of continuous care in improving the efficiency and effectiveness of care.

2. Methods

This study employed a descriptive research design. Population of this study was nurse work at Medical and Surgical ward total 95 people. All nurses participated in this study (total sampling). Data were collected using a questionnaire about knowledge of continuity of care developed by the researcher consisting of 25 questions. The questionnaire has been tested for validity and reliability before use. Before commencing the study, all participants involved and participating in this study were given sufficient and precise information regarding the purpose of the study, their involvement, and all related knowledge of the procedures and materials used in the study. The researcher delivered and provided participants with an information sheet and an informed consent sheet to be signed to participate in the study. Then, all participants gave informed consent to participate in this study. The data analysis used for this study was descriptive analysis to indicate variable measured which displayed in frequency and percentage.

Before conducting the study, ethical approval from the Ethical Review Board from Nursing and Health Research Universitas Riau had been granted for this study with certificate number 91/UN19.5.1.8/KEPK.FKp/2023. The University's Ethics Committee approved the study materials (questionnaires and informed consent forms).

3. Results and Discussion

The results of this study are presented by firstly depicting the demographic characteristics of the respondents involved in this study. It is followed by the findings of variables measured in the study.

3.1. Respondent Demographic Characteristics

Table 1. below shows that of the 95 respondents studied the majority of respondents were aged 19-44 years with 83 nurses (87.4%), 75 nurses were female (78.9%), education Diploma of

Nursing as many as 48 people (50.5%), and work experience ≥ 12 years as many as 49 nurses (51.6%).

Table 1. Demography characteristics

| No | Characteristics | Frequency | Percentage (%) |
|----|-----------------------|-----------|----------------|
| 1 | Age | | |
| | 19-44 years old | 83 | 87,4 |
| | 45-59 years old | 12 | 12,6 |
| 2 | Gender | | |
| | Male | 20 | 21,1 |
| | Female | 75 | 78,9 |
| 3 | Education Background | | |
| | Profession in Nursing | 45 | 47,4 |
| | Bachelor of Nursing | 2 | 2,1 |
| | Diploma of Nursing | 48 | 50,5 |
| 4 | Working Experience | | |
| | ≥ 12 years | 49 | 51,6 |
| | < 12 years | 46 | 48,4 |

3.2. Nurses' Knowledge of Continuity of Care

The findings related to nurses' knowledge of continuity of care are presented in Table 2 below.

Table 2. Nurses' knowledge of continuity of care

| No | Knowledge Level | Frequency | Percentage (%) |
|----|-----------------|-----------|----------------|
| 1 | Good | 65 | 68,4 |
| 2 | Intermediate | 11 | 11,6 |
| 3 | Poor | 19 | 20 |
| | Total | 95 | 100 |

Results The study found that nurses' knowledge of continuing care was good (68.4%), intermediate (11.6%) and poor (19%). Several factors, such as age, education and length of service, can influence this difference in knowledge. Based on the research findings, most respondents were aged 19-44, as many as 83 nurses (87.4%). According to [Permenkes RI, \(2016\)](#), age includes Adults (19-44 years) and Pre-Advanced Age (45-59 years). [Darsini, Fahrurrozi, and Cahyono \(2019\)](#) state that age is considered a factor that affects a person's response and thinking patterns; along with increasing age, a person's response and thinking patterns will experience development, which ultimately contributes to increasing their knowledge.

Age reveals a person's intellectual maturity and productivity ([Hidayat & Sureskiarti, 2020](#)). A productive age is an age with essential roles, busy routines, and solid cognitive capacity. Therefore, this age has the potential to impact understanding ([Reyaan et al., 2022](#)). A nurse's creativity is expected to be a better solution to overcome challenges in providing sustainable services to patients. Following this statement, nurses with good knowledge of continuing care in young adulthood can be more effective in maintaining continuity of patient care, reducing the risk of medical errors and improving patient experience during the care process.

Furthermore, in this study, female nurses (78.9%) were dominant compared to men. [Hayajneh, Hweidi, & Abu Dieh \(2020\)](#) stated that from the literature review regarding the influence of gender demographics on nurses' knowledge, perceptions and practices related to discharge plans, female nurses dominate it, so in this study, the influence was not examined, and most other studies said it was difficult to make comparisons based on the gender of nurses because of the large number of comparisons. In addition to this statement, according to the study results, female nurses have better knowledge than male nurses at Arifin Achmad Hospital. Communication and empathy are often considered essential characteristics of a female nurse, which can support good performance. Understanding of patient needs.

Based on the study results, most respondents have a nursing diploma, namely 48 nurses (50.5%). Demographic data in 2023 from the Head of the Nursing Department of Arifin Achmad Hospital stated that out of 764 nurses, 295 Diploma graduates compared to 13 S1 graduates. [Syakura & Ienawi \(2019\)](#) stated that nurses with a DIII Nursing degree carry out nursing practice. These skilled nurses can already work in hospitals and first-level health facilities. Nurses need to complete their education up to the nursing level so that a nurse's competence can be optimized. Based on this statement, continuing education to the Ners level helps nurses develop clinical skills and allows them to understand the more holistic aspects of providing continuous care. According to the study results, higher education nurses tend to have better knowledge about continuing care. Good knowledge can help provide more effective and quality care, including maintaining continuity of care to support patient recovery and well-being.

In this study, nurses had a working period of ≥ 12 years. As many as 49 nurses (51.6%) of the total respondents were included in the category of nurses with a long working period. The results of this study are in line with research conducted by [Aprilia, Daud, & Hartati \(2022\)](#), which states that as many as 21 nurses (63.6%) have a working period of 11-15 years, this shows that there is a close relationship between tenure and experience and knowledge gained during work, besides that the working period to increase knowledge can also be obtained from the experience gained so that skills and productivity at work increase. The longer a nurse works, the more experience and knowledge gained in clinical practice. Nurses who have worked for a long time tend to face various situations and challenges in patient care to improve their skills and understanding of service practices. In line with [Pratiwi's research \(2020\)](#), the proper nursing process based on sufficient knowledge and experience of nurses will increase client cooperation in the implementation of nursing actions, ensure clients will get continuous nursing care, and prevent duplication of actions and lack of action. Thus, it makes the quality of nursing care services excellent.

In addition to education and length of service, the level of knowledge can also be influenced by other external factors, such as training and standard operating procedures from Arifin Achmad Hospital itself. RSUD Arifin Achmad has standard operating practices in inpatient treatment services. They are starting from the flow of entering the hospital until finally leaving it. According to [Restu et al.'s research \(2023\)](#), ES's knowledge can affect the implementation of discharge plans because nurses must have good knowledge to seek further treatment. Continuing care as further treatment is not just a transfer of care but a continuity in chronic diseases and acute diseases. From various explanations, Continuity of Care comprehensively addresses the patient's health development and coordination with other health workers ([WHO, 2018](#)). In line with the theory, continuity of care focuses on patients, families, caregivers, and health workers who provide care ([Oliveira et al., 2021](#)). Even though the patient has gone home, the nursing staff will continue to provide nursing care according to the patient's needs as needed ([Zhang et al., 2022](#)).

Continuity of Care is a series of understanding or results of nurses' knowledge of the continuity of service or all relationships related to patient care, according to [Enggune, Runtu, Sumarauw, & Kaparang \(2023\)](#), which describes the level of knowledge of nurses about the patient's discharge plan in the inpatient room, namely having high knowledge as many as 48 respondents (54.5%). According to [Nahardian, Vica, Saputra, Kusdiana, & Rateh \(2020\)](#), the higher the nurses' knowledge in implementing Discharge Planning, the better the actions taken by nurses. Lack of nurse knowledge will hurt patient service.

[Fitri, Herliawati, and Wahyuni \(2019\)](#) explain that the role of nurses is vital in planning the patient's return with good and directed communication. Ineffectiveness in implementing discharge plans can interfere with the continuity of services when patients return home, potentially causing worsening and decreasing the patient's quality of life. So, in this case, a nurse's knowledge is very influential in patient care.

Understanding this continuity of service must be applied by all health workers to improve patient health services with the services provided. Research by [Costa, Perez, & Ciosak \(2021\)](#) states that for a nurse to implement Continuity of Care, knowledge of complex situation management, bonding with patients, having good interpersonal communication, and it is also

essential for nurses to know the hospital discharge plan, the resources needed for home care so that continuity of care can be provided.

Some limitations identified in this study include measuring instruments (questionnaires) that still require further development. Because at the time this research was conducted, few journal studies raised the theme of nurses' level of knowledge in the continuity of care, especially in Indonesia, the supporting data in this study were still limited.

4. Conclusion

This study provides an overview of the knowledge of nurses at Arifin Achmad Hospital on the knowledge of continuing care, where most nurses have good knowledge. This finding indicates that nurses in the inpatient department of Arifin Achmad Hospital have a sufficient understanding of the importance of continuing care in managing and providing nursing services to patients. Implementing continuity of care implies providing coordinated and consistent care throughout the patient's treatment. In addition, continuing care can also help the transition process of care from health services to home after discharge. The results of this study can further explore the relationship between the level of knowledge and the role of nurses in providing Continuity of Care to patients.

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