

Implementation of Mentoring System through Digital Application to Improve Nurse Quality in Hospital

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KEYWORDS ABSTRACT:

Digital Application, Medical Education, Mentee, Mentoring, Mentor, Nurse Quality

The process of enhancing one's own quality of life through education and an emotional bond between mentors and mentees is known as mentoring. Mentoring activities in nursing positively affect nurses' motivation at work, namely as a support to increase nurses' job satisfaction. The purpose of this study was to analyse how the implementation of mentoring of mentor nurses to mentee nurses in hospitals using the 'Si-Mantap' system. PenelitianThis study was conducted at ArifinAchmad Hospital, Riau Province, from May to October 2024. The sample in this study was 162 mentee nurses. The research method used a descriptive-analytic design to see the variables of age, length of service, education, and nurse mentoring evaluation categories: career support, psychosocial support, and role models. The research results on the characteristics of nurses from 162 nurses found more nurses of Young Adult age (18-44 years), 91%, more nurses of 0 - 10 years of work, 72%, and more nurses with Ners education, 62%. The evaluation of the nurse mentoring system showed that there were more nurses in the Exemplary category, 85.2%. This shows that nurse mentors as role models for mentees are very influential in nursing care in hospitals. This study concludes that the 'Si Mantap' application mentoring system carried out by mentors greatly influences the improvement of the quality of nurses in hospitals.

Introduction

Nursing is one of the professions in the health sector that contributes to the quality of health services. The quality of health services in nursing staff is determined by competence in education, skills, and experience. One of the roles of the nurse is to do mentoring. Mentoring is a process of improving personal quality at the level of education and working through an emotional approach between mentors and mentees (Kamaratri & Adhikara, 2019). Mentoring is a dynamic and supportive relationship between a mentor and a mentee that fosters personal and professional growth through emotional and educational support. Mentoring in nursing aims to increase nurse retention in organisations (Hasibuan et al., 2018) and is one of the methods to create a conducive environment and facilitate the learning process to improve the quality of nurses (Wati et al., 2019). This can be applied to health services, one of which is in hospitals. Mentoring programs support new nurse graduates transitioning from students to practising nurses (Voss et al., 2022). This support helps ease the transition and increase job satisfaction, which is crucial for retention. Mentorship has been shown to significantly improve job satisfaction among nurses (Mijares & Radovich, 2020). Higher job satisfaction is directly linked to lower turnover rates, as evidenced by a study where the turnover rate dropped from 20% to 12% after implementing a mentorship program (Moss & Jackson, 2019). Mentoring fosters professional development through ongoing interactions, coaching, and role modelling.

Hospitals' service and care management system needs to develop a system of nurse assignment methods in providing nursing care services to patients. With this assignment method, nurses find it easier to divide tasks with their team in nurse work shifts (Endah

Indrawati, 2018) However, this is still an obstacle for novice nurses with a world of professional challenges (Chao et al., 2021) and pressure during the transition period that requires the support of mentors (Phillips C, Kenny A, Esterman A, 2014). In order to help mentors become independent through learning activities, the researcher intends to develop a mentoring system that senior nurses (mentors) can use with novice nurses (mentees) (Susanthy et al., 2020). Balancing nurse workloads is crucial for ensuring patient safety, quality of care, and nurse satisfaction. Assigning nurses based on patient acuity scores can promote equitable workload distribution and improve the quality of care (Al-Dweik & Ahmad, 2020).

Problems related to the quality of nursing services are the workload experienced by nurses due to limited time in doing tasks, the amount of work that must be done (care and non-care), and the high level of complexity of the work or patient care done (Saputra, 2016). High nursing workloads negatively impact adherence to essential protocols such as hand hygiene, which is crucial for patient safety (Adarkwah, 2021). Increased workload leads to implicit rationing of nursing care, where nurses may skip or delay necessary tasks, affecting overall care quality (Adarkwah, 2021). If nurses have a high workload, it can significantly influence the provision of nursing care provided to patients, so the level of patient satisfaction with the provision of nursing care may decrease. Patient satisfaction indicates the quality of a hospital's services (Mawikere et al., 2021). The impact of socio-demographic factors on patient satisfaction is not fully understood (Adarkwah, 2021; Nainggolan et al., 2024).

There are many mismatches between mentors and mentees when mentoring nurses in hospitals. This mismatch can lead to misunderstandings and dissatisfaction, negatively impacting learning and development (Nettleton & Bray, 2008). Poor communication can exacerbate misunderstandings and hinder the development of a productive mentor-mentee relationship (Swathi et al., 2019). Mentors often struggle due to a lack of formal support from their work environment (Hale & Phillips, 2019). This lack of support can prevent mentors from providing adequate guidance and support to their mentees. Mentors may find it challenging to fulfil their mentoring duties alongside their regular responsibilities, potentially neglecting the mentoring relationship (Merga et al., 2020; Weber & Chatzopoulos, 2019).

The lack of a Structured Mentoring System leads to a lack of mentee understanding. Without a structured system, mentoring can be inconsistent and undirected (Chang et al., 2022). With less structured mentoring, the mentee will find it challenging to define personal quality development goals (Chen, 2023). Inconsistent mentoring from mentors suggests that unreliable mentoring can do more harm than good (Alm & Bailey, 2021). Inconsistent mentoring also results in poor-quality mentor-mentee relationships (Niazi et al., 2024). Poor relationship quality can lead to harmful effects, such as increased bad behaviour among mentees (Lyons & McQuillin, 2019; Khorolskyi et al., 2019).

Mentoring evaluations that are not optimal cause mentoring programmes to often be ineffective. Evaluations that do not consider mentoring outcomes may reduce the program's effectiveness (Lyons & McQuillin, 2021). The application of evaluation to mentoring programmes needs to accurately measure the quality of relationships to assess the programme's effectiveness [25]. Many mentoring programs lack standardised evaluation procedures, which can result in inconsistent and unreliable outcomes. Programs frequently do

not include comparison groups or experimental designs, making it impossible to establish the exact impact of mentoring (Crites et al., 2023; Lyons & McQuillin, 2019).

This study aims to analyse the implementation of mentoring of mentee nurses in hospitals using the 'Si-Mantap' application system. This research is important because it is carried out to increase nurses' job satisfaction and knowledge related to *mentoring* in nursing services. With increased job satisfaction, nurses can improve services in hospitals because nurses are the leading health service providers. In this study, training will be carried out for senior nurses (mentors), and the media used in this system is an application called 'Si-Mantap'.

Method

An analytical descriptive design is used in this investigation. During the assessment of novice nurse orientation, the interaction between senior nurses and rookie nurses is examined using the nurse mentoring analysis method. This study was conducted at the ArifinAchmad Hospital in the Province of Riau between May and October of 2024. The hospital uses sampling to find new and experienced nurses to participate. A total of 162 nurses are qualified to take part. Senior nurse participants have direct management duties and are in charge of performing evaluations. The head nurse and nursing supervisor are included in this. The Pekanbaru State Umbrella Health Institute's Institutional Review Board (293/IKES PN/KEPK/VIII/2024) gave its approval for this study. Every participant had to submit written and verbal agreement to participate in the study after being informed about it. Throughout the study, participants are free to leave at any moment. A questionnaire to assess the hospital nurse mentoring program was distributed to research participants. Gong (2022) provided the questionnaire to mentee nurses, which consists of questions in three categories: role model, career support, and psychosocial support.

Result

From Table1 above, the results of the frequency distribution of respondents based on the age of Young Adults (18 – 44 years) are more, namely 148 people (91%), the frequency distribution in the Length of Service 0 – 10 years is more, which is 116 people (72%), and the frequency distribution of Nurse Education is more, namely 101 people (62%).

Table. 1
Characteristics of Respondents Based on Age, Length of Service, and Education

Variable	Category	Frequency	Percentage
Age	Young Adults (18–44 years)	148	91%
	Intermediate Adult (45–59 years)	14	9%
	Total	162	100%
Length of work	0 - 10 years	116	72%
	11 – 20 years	40	24%
	21 – 30 years	6	4%
	Total	162	100%
Education	D3 Nursing	49	30%
	S1 Nursing	12	8%
	Ners	101	62%
	Total	12	100%

Throughout the analysis of data on (162) nurses working at ArifinAchmad Hospital, Riau Province, the results showed that most of the research sample (91%) was in the Young Adult age group (18–44 years), most (72%) worked in the hospital for 0-10 years. The education level is mostly (62%) the education of Nurses (professional nurses. This finding is in line with research conducted by (Baker Hassan et al., 2018), mostly (74%) in the age group (24 – 33 years). Regarding education level and length of work in hospitals, about (90%) graduated from college, and (52%) worked less than five years in hospitals. This research is also in line with research (Khudhur & Abdul-wahhab, 2024) that, based on many years of experience in nursing, this study found that most nurses have 1 to 5 years of experience in the ratio (62.5%).

Table. 2
Evaluation of Nurse Mentoring System

Nurse Mentoring System Evaluation Category	N	Percentage
Career Support	162	84,6%
Psychosocial Support	162	36,4%
Exemplary	162	85,2%

Table 2 was obtained from evaluating the mentoring system in the exemplary category, where the evaluation of the nurse mentoring system was higher (85.2%) than in other categories.

Discussion

In connection with the results of the evaluation of the nurse mentoring system at ArifinAchmad Hospital, Riau Province, it was found that the evaluation of the value of Exemplary (85%), the evaluation of the value of Career Support (84.6%), a mentor was higher than the evaluation of the value of Psychosocial Support of the mentor nurse assessed by the nurse mentee. This follows Weng's (2010) research, showing that the value of Exemplary and Career Support has a positive effect on job satisfaction and commitment of new nursing organisations (mentees), but the function of Psychosocial Support is not able to provide an adequate explanation for these work outcomes. If mentor nurses want to improve mentoring programs for new nursing staff (mentees), they must push mentors towards Psychosocial Support, provide opportunities for self-expression and promotion, and assign challenging tasks that provide more lessons and opportunities for new nurses. Effective mentors will strengthen mentees' job satisfaction and commitment to the hospital. In the application of mentoring in this study, the application system "Si-Mantap" is used.

The 'Si-Mantap' mentoring application system provides a structured mentoring programme to help build quality mentor and mentee relationships by providing a clear framework and support mechanisms (Ssemata et al., 2017) This mentoring program is essential in nursing because it will provide many benefits. Mentors benefit from the opportunity to facilitate development discussions and support junior peers, while mentees benefit from career planning and personal growth (Merga et al., 2020) Evidence shows that the help of competent mentors facilitates role transfers, increases job satisfaction, improves nursing care to patients, and decreases nurse turnover in hospitals (Dunlap & Fitzpatrick, 2023) According to

Wongprasit(2024), moral development, participation, teamwork, job satisfaction, and good time management can affect the quality of life of nurses when providing nursing care to patients. The role of a mentor is to guide mentees with the main components of job quality management, namely, agency support, occupational safety, job participation, job satisfaction, well-being, self-development, and leisure management.

Optimised and structured mentoring using the 'Si-Mantap' system significantly improves the mentee's personal and professional quality. Improving the quality of nurses' abilities is an important factor that affects the success of providing care to patients, as well as the competence of nurses, attitudes, and beliefs (Hussein et al., 2024). In this case, the example of a mentor also affects this. The implementation of this study also looks at how a nurse in carrying out nursing care uses better nursing documentation in handling patients (Khudhayer & Adulwahhab, 2023), dapat Looking at the example of mentors in hospitals, so that career support and psychosocial support significantly influence in improving the quality of nurses in hospitals.

Nurse turnover in the first year of working in American hospitals is relatively high. Data shows that a turnover of 30% is standard, with significant costs incurred for onboarding and training for each replacement. Although most mentees have a mentor, only 40% receive formal mentorship. The results of the literature review found that overall mentoring reduced nurse mentee turnover in all relevant studies. Savings for hospitals or health service companies are realised through reduced employee turnover, and overall employee satisfaction increases (Djiovanis, 2023) Mentoring has been identified as one of the tools for attracting and retaining new nurses (Hodgson & Scanlan, 2013). Olaolorunpo's research (2019) shows that mentoring in nursing significantly influences the production of better nurses in the future and the ease of handing over the nursing profession to the younger generation. It can also help understand the characteristics of mentoring in nursing to increase knowledge of the nursing profession.

Conclusion

This study concludes that the mentoring system applied by mentors is proven to improve the quality of nurses in hospitals. This conclusion provides an overview of the importance of a structured mentoring program in improving the competence and quality of nurses. Nurses must continue to step up to provide nursing care services to patients. The success of the nursing profession lies entirely in meeting the challenges and needs of the healthcare system. The nursing profession needs to be committed and accept the mentoring concept to guide new nurses who need career support, psychosocial support, and role models from a mentor. Mentoring is an invaluable tool for the future of nursing and should be highly respected to promote and support nursing care. The healthcare organisation should recognise and support mentoring as a success plan and have an important strategy for attracting and retaining new nurses (mentees). The contribution of this research with the application of digitalization in mentoring using the 'Si Mantap' system can provide structured and effective mentoring.

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