

INCREASED NURSE KNOWLEDGE DEVELOPMENT OF WEB-BASED GERIATRIC ASSESSMENT APPLICATION

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ABSTRACT

Nursing care is not only provided to adults but also to the elderly. The elderly require greater assistance in the identification, definition, and resolution of problems that affect them. Increasing life expectancy (UHH) has a complex impact on the welfare of the elderly. Gerontic nurses as the spearhead of nursing services for elderly groups need to get updates and provide information on an ongoing basis related to the mitigation process in elderly groups and other vulnerable groups in an effort to minimize the impact that will occur. Nurses are expected to provide understanding in the form of comprehensive counseling or counseling to the elderly and their families regarding the disease conditions experienced and prevention that can be done at home. So it is important to carry out correct nursing care when the elderly seek treatment at the hospital so that the continuity of services to the home or community can be of higher quality and sustainable. This community service was carried out at Pekanbaru Medical Center Hospital with the aim of improving the quality of nursing care provided to the elderly by developing a web-based assessment and Nursing Care Plan at PMC Hospital. The target of Community Services are 15 nurses who interact with geriatric patients. The results obtained were an increase in nurse knowledge before and after the training. In addition, the nursing care provided becomes more qualified as seen from the documentation carried out by nurses in electronic medical records and the completeness of nursing care. Suggestions for hospitals to continue to be able to develop geriatric Nursing Care Plan in accordance with updated geriatric services in hospitals, conduct socialization with doctors, and collaborate with other health workers (Nutricionis, Physiotherapists, and Psychologists).

Keywords: geriatric nursing care; geriatric assessment application; web-based nursing care plan

INTRODUCTION

Nursing care according to Law No. 38 of 2014 concerning nursing (2014, n.d.) is a series of nurse interactions with clients and their environment to achieve the goal of meeting the needs and independence of clients in caring for themselves. Nursing care for these clients is not only given to adults, but also given to all ages including the elderly. Health professionals spend more time with the elderly in health care, so they must focus on identifying and meeting their special needs. The elderly require greater assistance in the identification, definition and resolution of problems that affect them. The greater incidence of chronic health problems, technological advances and contemporary economic, social and health issues are driving healthcare professionals to focus on improving life expectancy and quality. (Abdullah, 2022) Increasing life expectancy (UHH) has a complex impact on the welfare of the elderly. On the one hand, an increase in UHH indicates an increase in the level of health of citizens. But on the other hand, it creates problems because the increasing number of elderly people will result in an increasing burden borne by families, communities and governments, especially in providing services and other facilities for the welfare of the elderly. This is because in old age individuals will experience physical, mental, socio-

economic and spiritual changes that affect functional abilities in daily life activities, making the elderly more vulnerable to suffering from health problems both physical and mental (Health, 2013). Although not all structural and physiological changes, it is estimated that half of the elderly population experience limitations in daily life activities, and 18% of them are completely unable to move. In relation to the physical category, it is estimated that 85% of those aged 65 years or older have at least one health problem (Abdullah, 2022).

In 2021, 42.22 percent of the elderly had experienced health complaints in the past month, half of whom (22.48 percent) had their daily activities disrupted or were sick. About 81.08 percent of the elderly self-treat their health complaints and 45.42 percent seek outpatient treatment (Abdullah, 2022; Pradana & Rohayati, 2021). Nurses are expected to provide understanding in the form of comprehensive counseling or counseling to the elderly and their families regarding the conditions of the disease experienced and prevention that can be done at home. From this explanation, it can be concluded that it is important to carry out correct nursing care when the elderly seek treatment at the hospital, so that the continuity of services to the home or community can be of higher quality and sustainable. Pekanbaru Medical Center Hospital is a hospital that has been established since 2005 which currently has a vision and mission to provide superior service to the community. One of the points of the mission of Pekanbaru Medical Center Hospital is to participate in programs that aim to improve the quality of services, especially nursing services. The actions that can be taken to realize the mission are to provide professional and quality nursing care to patients. Pekanbaru Medical Center Hospital implements basic geriatric services, meaning that there is a special polyclinic room for geriatric patients. The partners in this community service are nurses in the polyclinic of Pekanbaru Medical Center Hospital (PMC Hospital Profile, 2023).

Based on medical record data from Pekanbaru Medical Center Hospital in January-March 2024, it was found that the age range >55 years was the second most patients (Medical Records, 2024). This means that there is a specificity of nursing care provided because the patient is in the pre-elderly age range. In fact, at Pekanbaru Medical Center Hospital, the applicable documentation has not been differentiated, so there is no specific nursing care for the elderly at Pekanbaru Medical Center Hospital, both in outpatient and inpatient settings. Recording and documenting geriatric nursing care has not been maximized, there is no system related to Geriatric Nursing Care Standards, making geriatric nursing care not in accordance with Nursing Care Standards. The development of technology makes Askep must be done computerized. This is a problem because until now there has been no computerized askep, especially geriatric nursing care. In addition, the problems felt by Partners are (1) The high number of visits by elderly patients in outpatient and inpatient care at Pekanbaru Medical Center Hospital. Nursing care that is carried out has not focused on the elderly either in paper or computerized. As a service provider, nurses provide direct services to the elderly in various situations. Nurses must be able to understand the disease process that commonly occurs in the elderly including knowledge of disease background, risks, risk factors, signs and symptoms, medication therapy, nursing care, and rehabilitation that can be provided to the elderly. While related to nurses as teachers, gerontic nurses focus on providing services and teaching to the elderly and modified risk factors through health promotion and health services. Nurses have a role to maintain the elderly population on how to reduce the risk of disease disorders which are the main cause of death of the elderly. The role of gerontic nurses as managers with the task of balancing the concerns of patients, families, nurses, and other health workers (Umeda-kameyama et al., 2018). (2) The web-based geriatric assessment

application has never existed at Pekanbaru Medical Center Hospital. Nurses still write askep on paper and add time to patient care. The electronic medical record deadline makes it imperative that this askep is also made electronic web-based. This has not been discussed at all by the nursing department.

The purpose of this community service is for the elderly who get services at Pekanbaru Medical Center Hospital to get quality nursing care. In addition, in terms of educational institutions, this community service can facilitate the implementation of MBKM for universities, namely students can apply knowledge outside the campus and lecturers can implement knowledge in carrying out community service. The college's KPIs also increased, as evidenced by the involvement of students in the tridarma of lecturers outside the campus. After this web-based nursing care is created, further socialization and training will be carried out to improve basic geriatric nursing competencies at Pekanbaru Medical Center Hospital.

METHOD

The method used in this service activity is training. The activities were carried out in the time span between June - November 2024 for four intervention or implementation activities. Activity participants were 15 nurses at Pekanbaru Medical Center Hospital. The solution steps that will be implemented:

Training

After the instrument is ready to be applied, nurses who are the target of community service will be socialized and trained in making geriatric nursing care starting from assessment, diagnosis, intervention, implementation and evaluation. This training process took place 4 times. After ensuring that nurses can carry out geriatric nursing care, they will then continue with training in the use of web-based/computerized askep. This training starts with training for the caregiver and the person in charge. The training will be conducted at Pekanbaru Medical Center Hospital in accordance with the previously agreed time. It is hoped that the existing commitment can be maximized. Because the team and partners both feel the same problems and agree to solve these problems.

Application of Technology

The technology applied is geriatric nursing care integrated into the pekanbaru medical center hospital information system. Information systems that previously existed were expected to be integrated with web-based applications that had been prepared. This of course requires cooperation with other units, namely the Information Technology (IT) unit as an information system developer at Pekanbaru Medical Center Hospital. The implementation of web-based geriatric askep will make it easier for geriatric nurses to identify problems of the elderly who need health services in the hospital. It is hoped that if the problem obtained is in accordance with the condition of the elderly, the intervention provided will also be appropriate to overcome the existing problems. With the right intervention and implementation, the elderly health problems will be resolved properly. In addition, it is hoped that with the application of this technology, documentation will be better and does not require a lot of time. So that nurses will focus more on providing nursing care to the elderly.

RESULT AND DISCUSSION

This Community Service was carried out from June - October 2024 which began with a Partner survey and FGD with Community Service Partners. Furthermore, it is continued with the implementation with community service partners until the PKM report is compiled.

Training

After the instrument is ready to be implemented, nurses who are the target of community service will be socialized and trained in making geriatric nursing care starting from assessment, diagnosis, intervention, implementation and evaluation. This training process took place 2 times. After ensuring that nurses can carry out geriatric nursing care, the training will continue with the use of web-based/computerized askep. The training will be conducted at Pekanbaru Medical Center Hospital in accordance with the previously agreed time.



Gambar 1 dan 2 : Pelaksanaan Pelatihan

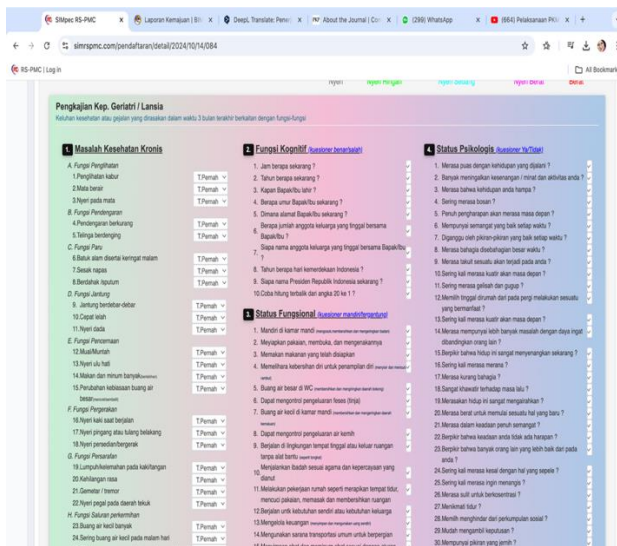
Tabel 1.
 Pengetahuan Perawat sebelum dan Sesudah Pelatihan Asuhan Keperawatan Gerontik di RS Pekanbaru Medical Center

Pengetahuan Perawat	Sebelum (n=15 perawat)	Sesudah (n=15 perawat)
Asuhan Keperawatan		
Baik	1 (6,7%)	10 (66,7%)
Cukup	8 (53,3%)	5 (33,3%)
Kurang	6 (40%)	0 (0%)

Training is one of the effective methods to improve nurses' knowledge and skills. Table 1 shows that there was an increase in nurses' knowledge before and after the training. Good knowledge from 1 (6.7%) nurse to 10 (66.7%) nurses. Sufficient knowledge from 8 (53.3%) to 5 (33.3%) and less knowledge from 6 (40%) to 0 (0%). The training activities carried out at PKM partners are beneficial for nurses who serve geriatric patients. Partners also participated in the training enthusiastically and actively. This is in accordance with what was conveyed by (Akhmad, 2021), the benefits of training for nurses are Improved Clinical Skills, Knowledge Update, Increased Confidence, and Better Quality of Care. This is in accordance with the objectives of this PKM, namely improving the quality of nursing care provided to the elderly who receive services at Pekanbaru Medical Center Hospital.

Technology Implementation

The technology applied is geriatric nursing care integrated into the Pekanbaru Medical Center Hospital information system. Information systems that previously existed were integrated with web-based applications that had been prepared. This is evidenced by the integration of the *Assessment and Nursing Care Plan* into the existing Information System at Pekanbaru Medical Center Hospital. The integration process is carried out in collaboration with the IT Unit in the Hospital and the Nursing Unit



Gambar 3 : Pengkajian berbasis web



Gambar 4 : Askep Komputerisasi (web)

Figures 3 and 4 are the results of implementing the geriatric web-based Nursing Care Plan technology. Within 2 weeks of socialization and implementation, nurses who serve geriatric patients can already use the NCP. The application of technology in nursing can improve the quality of nursing care in various ways, such as: (1) Improve efficiency: Technology can help nurses to focus on more important tasks and quality patient time. (2) Improve data accuracy (3) Improve the quality of patient information: Technology can provide accurate and comprehensive patient health information. (3) Assist in the diagnosis process: Technology can assist in the diagnosis process by analyzing data entered by nurses. (4) Minimize medical errors. (5) Help prevent the spread of disease (Ginting, 2020; Resources, 2024).

CONCLUSION

From the implementation of this Community Service, the results are obtained: Nurses' knowledge increased before and after the training on geriatric nursing care. In the future, we will continue with the sustainability of the program. After this community service activity is completed, partners will continue to be able to communicate with the PKM team. It is recommended that the partners or the team update related to geriatric care so that services to geriatric patients can continue to be improved.

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