

Research Article

Nursing Student's Experience with Electronic Nursing Assessment Form: A Phenomenology Study

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The transition to the digital era also occurs in the health sector. This transition requires adaptation and learning starting from school, such as using electronic medical records. This study aimed to determine the experience of nursing students at Hang Tuah University Pekanbaru using the electronic assessment format. This research uses a phenomenological study approach. Participants used the electronic nursing assessment form (ENAF) which is still being developed by the research team. This study used a consecutive sampling technique that involved 33 nursing students who did clinical practice for the basic nursing skills course. Focus group discussion (FGD) was used to collect the data, it was divided into three groups. The data were analyzed using content analysis. There were two main themes with 7 sub-themes. The themes are dimensions of ENAF and future improvement. Mostly, participants agreed to use ENAF because it was considered more efficient and economical. In addition, the data is also safer without the fear of paper damage. The display of documentation results is also clean, and easier to analyze patients' problems. Based on participants' experience using ENAF, there are several obstacles such as forgetting to save the results of the assessments and technical problems when using ENAF on mobile phones. All participants agreed with using ENAF because ENAF is more practical and cheaper than using a paper-based assessment form. Nursing students should be prepared with the ability to use electronic health records so they can adapt to the digital era, especially in the documentation system.

Keywords: digital health record, electronic assessment format, nursing assessment

1. INTRODUCTION

The transition to the digital era occurs in all sectors, including in the health sector. One of the transitions in the health sector is in terms of documenting the patient's medical history. Based on the Minister of Health Regulation (PMK) number 24 of 2022 concerning Medical Records, it is stated that health care facilities are required to run an electronic patient medical history recording system. This transition process is carried

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vellayovito@gmail.com**Published** 10 February 2023Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the RINC Conference Committee.



out no later than December 31, 2023. This indicates that health services that use paper-based patient medical records must immediately switch to electronic-based medical records.

There are several advantages as well as challenges in using electronic medical records. The benefits of using EMR include improving service quality as well as becoming a very large, efficient and cost-effective database for long-term use (Atasoy, Greenwood & MsCullough, 2019). The variety of information stored in electronic health records is a source of data that can be used for research or learning process (Xiao, Choi, & Sun, 2018). The challenge faced is that EHR requires the ability of health workers to use computers (Medani et al, 2020). Therefore, all health workers, including nurses, must be able to adapt to the transition process from paper-based to electronic-based.

The adaptation process is not only carried out by nurses who have worked in health services but is also followed by nursing education institutions. Currently, the majority of nursing students who practice in clinical practice still use a paper-based assessment form. The results of observations made on nursing students who undertake clinical practice at the Regional General Hospital in Riau Province indicate that all nursing students still use the paper-based assessment format in documenting nursing care. Therefore, it is necessary to develop an electronic-based assessment format that can be used in conducting documentation.

The electronic assessment format used in this study is the Electronic Nursing Assessment Form (ENAF). ENAF facilitates students to digitally document assessment results. In this program, preceptors can monitor student documentation without having to meet students directly and can also comment on the results of the study. This study aims to explore the experiences of nursing students in using the electronic assessment format, so that later ENAF can be developed into a documentation medium for nursing students who carry out clinical practice.

2. MATERIALS AND METHODS

This study used a phenomenological study approach, where the research team explored the experience of participants in using an electronic assessment format. This study has received an ethical committee approval Nomor: 446/KEPK/STIKes-HTP/VI/2022 from KEPK STIKes Hang Tuah Pekanbaru on 29th June 2022. The sample in this study used a consecutive sampling technique, with 33 participants. The participants in this study were 33 students at the second semester who undertook clinical practice in an inpatient room that requires the assessment format used in ENAF in the form of

head-to-toe assessment format that must be filled out completely. Therefore, it is not appropriate if it is used on students who do clinical practice in an outpatient room. Data were collected using FGD technique that was divided into three groups. The FGD was conducted two days after the participants finished their practice. The data obtained were analyzed using content analysis.

3. RESULTS

Participants in the study were in the age range of 17-19 years. All participants stated that they preferred the electronic assessment format to the paper assessment format. The following are the results of the analysis obtained based on the results of the FGD conducted on research participants. This study get 2 themes with 7 subthemes.

TABLE 1: Thematic Findings.

Theme	Subtheme	Expressions
Dimension ENAF	Efficiency Costs Security Appearance	"Using ENAF is easier. If you want to fill in the assessment format, you can open your cellphone and just fill it up. It's so practical!" "It appears to be more cost-effective. Typically, we must photocopy the assessment format. All that remains after using ENAF is to print the assessment results. It is not necessary to print a large number of assessment sheets anymore." "I feel more secure storing my assessment format in ENAF. Especially during the rainy season, which is currently underway. I once wrote an evaluation on paper, but it got wet and I had to rewrite it." "The results of the assessment format from ENAF are more presentable. If there is a writing error, it can be removed right away. If you write on a paper, it will be sloppy and messy." "If you use paper, sometimes the paper gets smudged because it is filled several times. It looks even better with ENAF"
Future improvement	Ready to use on HP with System Repair Various assessment versions	"If you open ENAF on your cellphone, it's a bit difficult to scroll to certain parts. But if you open it on a laptop, it's safe" "Hopefully it can still be used when offline" "At the time, I had already written a lengthy report on my assessment format. However, not everything was saved when I submitted. Some sentences were missing." "The buttons for editing and deleting are positioned too close, I once accidentally deleted the content of the assessment." "We still use the format for basic nursing, hopefully it can also be used in pediatric nursing, maternity, and others." "Hopefully, it can be used for the data analysis stage for nursing problems to evaluation, not just for assessment."

4. DISCUSSION

This research is a part of developing an electronic-based assessment format (ENAF) which aims to explore participants' experiences after using it. The use of electronic

health records will continue to increase in Indonesia, especially after released PMK Number 24 of 2022 by Indonesia Ministry of Health which requires using electronic medical records in health services. Therefore, the introduction of electronic medical records needs to be done from the educational level. Recommendations from one study stated that students should be informed about the importance of using electronic-based medical records so that they can increase student acceptance of using electronic-based formats (Kowitlakul, Chan, Pulcini, & Wang, 2014).

Two themes were found in this study, first theme is ENAF Dimensions, and second theme is Future Improvements. One of the sub-themes is efficiency in using ENAF. Several participants said that with ENAF, easier access to filling the forms from anywhere as long as they bring a device. The same thing regarding the use of electronic health records provides the advantage of convenience in accessing the required information (Rathert, Porter, Mittler & Fleif-Plmer, 2017).

In addition to the ease of filling in, the contents of the assessment can also be accessed by the preceptor to examine the reports made. Electronic medical records provide many advantages, one of which is from the aspect of communication and collaboration. One of the advantages of using electronic medical records is that communication between health workers becomes easier because written data can be accessed without having to meet face to face (Andriani, Wulandari, & Margianti, 2022). There are four operational factors with the use of electronic medical records, namely work completion time, accuracy, efficiency factors, and ease of reporting (Dwijosusilo & Sami, 2018).

In addition to ease of access to the assessment format, ENAF is also considered safer than using a paper-based assessment format. This study shows that in terms of physical administrative security and this is one of the advantages of using electronic medical records (Wikina, 2014). The use of ENAF is also considered cheaper in terms of cost. A comparison of costs between conventional information technology and modern information technology shows that modern information technology is cheaper and also easy to access anywhere (Herlina, Rusman, Marlina & Suwardoyo, 2022). The use of electronic medical records can improve the quality of care, save time and reduce operational costs (Kamau, 2015).

The appearance of the documentation results with the use of ENAF was also felt to be better by the participants. Writing errors can be corrected easily and the results of the documentation can still be read properly. The use of computer-based medical records has shown improvements in terms of patient safety, for example in terms of errors in prescribing and documentation (Baumann, Baker & Elshaug, 2018). The results of

research related to the experience of nurses in using electronic-based documentation systems show that the results of the assessment are easier to read and are neater (Dhamar & Rahayu, 2020).

There were some deficiencies experienced by participants when using ENAF and this was used as a system improvement sub-theme. The same condition, including an error system, was found to be an obstacle in implementing electronic medical records, (Amin, Setyonugroho & Hidayah, 2021). This is of course a challenge to make improvements to the system so that it can be used better in the future.

5. CONCLUSION

The conclusion of this study is that nursing students feel the benefits of using the electronic assessment format. Although there were still some obstacles when using the electronic assessment format, all participants preferred to use the electronic assessment format rather than paper-based. The obstacles encountered can be used as considerations for the development of ENAF in the future. The results of this study strongly recommend that nursing students should be able to adapt to the transition process. They need to be able to use the electronic assessment format. Therefore, nursing education institutions should provide learning media that are in accordance with developments that occur in the health care setting. This requires integration between learning curricula that must be able to adapt to the development of health services

ACKNOWLEDGMENTS

The Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia funded this research for the fiscal year 2021. Sincere thanks to thank Hang Tuah University Pekanbaru, especially LPPM Hang Tuah University Pekanbaru, Nursing Science Undergraduate Study Program, and Hang Tuah University Pekanbaru Computer Center, for their full support in carrying out this research. Our gratitude the Regional General Hospital in Riau Province for the support in granting permission to use ENAF during clinical practice.

CONFLICT OF INTEREST

There is no conflict interests for this study.

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