Educational Video As Evaluation Tool for Community Nurses' Cognitive Level of Dialysis Therapy

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INFO ARTIKEL	ABSTRAK
	Maraknya program pendirian unit Continuous Ambulatory Peritoneal Dialysis (CAPD) oleh pemerintah belum sepenuhnya diantisipasi oleh perawat komunitas. Tujuannya adalah melalui video edukasi, kita dapat mengevaluasi tingkat kognitif perawat komunitas mengenai terapi dialisis secara umum dan CAPD pada khususnya. Artikel ini menggunakan metode kuantitatif dengan teknik analisis data deskriptif. Penelitian berbasis pengabdian masyarakat ini disusun pada bulan Juni 2023. Populasi terdiri dari seluruh tenaga kesehatan di Puskesmas Daya, dengan kriteria inklusi perawat komunitas yang bekerja di Puskesmas Daya, kriteria eksklusi adalah non tenaga kesehatan atau non tenaga kesehatan. Instrumen yang digunakan adalah video dan kuesioner. Kuesioner terdiri dari dua kelompok (demografis dengan 3 pertanyaan dan 10 pertanyaan dalam teknik keperawatan). Pengolahan data menggunakan teknik univariat. Teori yang digunakan dalam pengolahan data adalah Teori Keperawatan yang meliputi pengkajian, perencanaan, implementasi, dan evaluasi. Analisis data dilakukan secara deskriptif. Hasil penelitian menunjukkan ada dua permasalahan utama, yang pertama adalah jumlah pegawai yang kurang memadai, terutama perawat. Yang kedua adalah kurangnya pemahaman tentang terapi ginjal. Dua puluh enam responden mengikuti kuesioner melalui Google Form *yang dibagikan secara* online*. Lima dari 10 pertanyaan dijawab dengan benar oleh responden (50%). Temuan ini merupakan hasil evaluasi bahwa perawat komunitas belum sepenuhnya memahami terapi ginjal. Temuan kami merekomendasikan bahwa kebijakan manajemen staf perawat minimal akan mempengaruhi kepuasan kerja dan penyediaan pelatihan CAPD singkat untuk staf perawat.*

ARTICLE INFO	ABSTRACT
	The rise of programs to establish Continuous Ambulatory Peritoneal Dialysis (CAPD) units by the government has not been fully anticipated by community nurses. The objective is through educational videos, we can evaluate the cognitive level of community nurses regarding dialysis therapy in general and CAPD in particular. This article used quantitative method with descriptive data analysis techniques. This community service-based research was compiled in June 2023. The population consisted of all health workers at the Daya Health Center, with the inclusion criteria of community nurses working at the Daya Health Center, the exclusion criteria were non-health workers or non-

nurses. The instruments used were videos and questionnaires. The questionnaire consisted of two groups (demographic with 3 questions and 10 questions in nursing technique). Process the data using univariate techniques. The theory used in processing the data is Nursing Theory which includes assessment, planning, implementation, and evaluation. Data analysis was carried out descriptively. The results show there are two main problems, the first is an inadequate number of employees, especially nurses. The second is a lack of understanding of renal therapy. Twenty-six respondents took part in the questionnaire via Google Form which was distributed online. Five out of 10 questions were answered correctly by respondents (50%). These findings are the result of an evaluation that community nurses have not fully understood renal therapy. Our findings recommended that management's policy of minimal nursing staff will affect job satisfaction and the provision of short CAPD training for staff nurses.

1. Introduction

The case of chronic kidney failure (CKD) is a national health problem and many efforts and actions have been made to deal with it over the past ten years (Ns. Diyah Candra Anita, 2020). Among them is the use of an Electronic Data System (EDS) which is packaged to improve the quality of CRF data, which was previously still paper-based, made digital to improve case management in several countries that support CRF handling programs (Gerardus Gegen, 2021). EDS is a custom-built and open-source system, based on Java Android application integrated with District Health Information Software 2 (DHIS2) (Graham-Brown, Smith and Greenwood, 2022). In other words, to increase the efficiency of the program, various alternatives and innovations are needed that can be applied as media for delivery and learning. Another form of innovation is the media that can be used in the form of video. There are 61% more video users on computers compared to consoles 27%, cellphones 9% and handheld devices 3% (Herman *et al.*, 2022). There are also several video games with various themes, but the results of the analysis of these videos do not yet detail the prevention of CRF. From this problem, it is important to know whether, with video, we can help measure the cognitive level of health workers, especially community nurses to find out their knowledge and interest in CRF prevention programs. Previous research regarding the involvement of community nurses in managing CRF through dialysis therapy has been carried out a lot (Chuasuwan *et al.*, 2020; Faridah *et al.*, 2021; Lew *et al.*, 2021). The latter is a study by Afzal et al in South Sulawesi (Afzal and Hardy, 2021) and in Aceh which involved community nurses working at the Puskesmas (Afzal *et al.*, 2021). It's just that there is no mention of how to measure the level of understanding of community nurses toward dialysis therapy. Therefore, as a continuation of the two previous related studies, an assessment related to measuring the cognitive level of community nurses regarding dialysis therapy will be urgently needed.

This article wass based on community service at the Daya Health Center, Makassar City, South Sulawesi. The Daya Health Center is relatively young because it has not even been established for

two years. With the support of 28 employees, the Daya Community Health Center implements the Community Health Center programs just like the Community Health Centers in Makassar City in particular, and Indonesia in general (Listyowatii, 2012; Amieratunnisa and Indarjo, 2018). One of the problems faced as a health center which is still operationally new requires various forms of coaching including in terms of increasing the competence of Human Resources (HR) (Sepriyani, Andoko and Perdana, 2019). In terms of handling Chronic Kidney Failure (CKD) cases, from the results of the study in the author's paper entitled Educational Video as a Cognitive Level Evaluation Tool for Community Nurse Dialysis Therapy at the Daya-Makassar City Health Center, data obtained that 50% of community nurses still do not understand the meaning, procedures, and duties of nurses in Dialysis therapy, especially Continuous Ambulatory Peritoneal Dialysis (CAPD). Meanwhile, cases of CRF in Indonesia in general have increased. Meanwhile, the majority of community nurses still do not understand dialysis therapy (Hardy, Afzal and Tukayo, 2021).

This article was the result of the Community Service program which used a quantitative method with a descriptive design aimed at obtaining an overview of the level of knowledge of community nurses at the Daya Health Center on dialysis therapy through an application-based educational video. It was hoped that the implications of this research would be useful and contributed to community nurses involved in nursing CKD failure cases at the Daya Health Center in particular, and South Sulawesi and Indonesia in general.

2. Methods

The method used was quantitative method with descriptive data analysis techniques. This approach has been widely used because it is considered a useful data analysis technique for uncovering the similarity of meaning that is the essence of a concept (Ofei, Paarima and Barnes, 2020; Aeni, 2021). This research was compiled in June 2023. The population consisted of all health workers at the Daya Health Center, with the inclusion criteria of community nurses working at the Daya Health Center, the exclusion criteria were non-health workers nor nurses. The instruments used were videos and questionnaires. Primary data was obtained from the results of data collection from respondents with video instruments and questionnaires, a 3-minute educational video about dialysis therapy. Meanwhile, the questionnaire consisted of two groups (demographics with 3 questions and 10 questions in technical health or nursing). The data process using univariate techniques. The theory used in processing the data was Nursing Theory which includes assessment, planning, implementation, and evaluation. Data analysis was carried out descriptively (Gasaba *et al.*, 2021).

An assessment of this problem was carried out during a residency practice at the Daya Health Center, Makassar City, South Sulawesi involving health workers working at the Daya Health Center including distributing online questionnaires for data collection. The second stage was Planning, namely data analysis, and problem prioritization. The implementation phase consists of solving problems was the third stage. The fourth stage of evaluation consists of evaluating the results of training and feedback. The community service program was started after obtaining approval from the Institute of Health Sciences of Strada Kediri.

3. Results and Discussion

Assessment

Public health center (Puskesmas) Daya is one of 46 Puskesmas in Makassar City, South Sulawesi which provides services consisting of general examination services, elderly examination services, maternal and child-family planning (KIA-KB) health services and immunizations, dental and oral health services, pharmaceutical services, laboratory services, and integrated consulting services. Puskesmas Daya is one of the Puskesmas in the working area of the Makassar City Health Office. The Daya Health Center is located on Jl. Freedom Pioneers Km. 14 Daya Village, Biringkanaya District, Makassar City. Puskesmas Daya was built in 2016. Puskesmas Daya is located between 2 government offices. To the left is the Daya Lurah Office and to the right is the Biringkanaya District BKKBN Office. The new Daya Health Center functioned to serve the people of the Daya sub-district and its surroundings in September 2017. The Daya Health Center is a new health center which is a division of the Sudiang Raya Health Center which currently does not yet function definitively as one of the Health Centers that is directly responsible to the Makassar City Health Office. The Daya Health Center is still under the Sudiang Raya Health Center.

Demographic data

Table 1: Age, Sex, and Occupation

age	Sex			Occupation	
	M	F	Nurses	Health Professional	Non-health professions
<25	1	3	1	2	1
25-40	1	15	4	12	1
> 40	3	5	1	6	0
Σ	5	23	6	20	2

The table above shows that the majority of Daya Health Center employees are female (n=23 or 82.1%), and health professionals who are not nursing (n=20 or 78.6%). The number of community nurses n = 6 (21.4%).

Renal Therapy-related data

The ten questions distributed in the questionnaire are related to renal therapy. Questions in the form of Multiple choice and True and False. Questions number 1 to 6, are about: Have you ever heard of the term kidney therapy (Renal Therapy)?, There is 3 Kidney Therapy, namely: Kidney Transplant, Hemodialysis, and Peritoneal Dialysis (CAPD), Peritoneal Dialysis (CAPD) is done through the stomach lining, Purpose of the main role of CAPD is to filter the blood and remove the

remaining substances, and The CAPD procedure requires inserting a catheter and the treatment can be done manually at home. All respondents answered 'true' (100%) which is the correct answer. Thus it can be concluded that the respondents understand the meaning of renal therapy, and know the type, CAPD is performed through the peritoneal lining, the procedure requires a catheter, and is economical compared to hemodialysis.

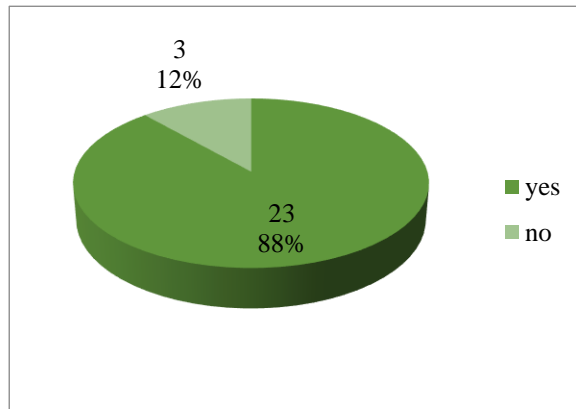Question number 6: CAPD is more economical than Hemodialysis:

Diagram 1: CAPD is More Economical than Hemodialysis

Diagram 1 shows that the majority of respondents answered 'yes' which is the correct answer. Proving their knowledge of the economical principle of CAPD is more than hemodialysis (n=23 or 23%).

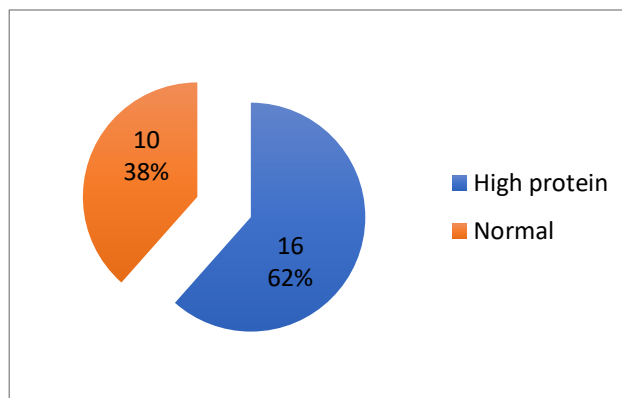Question number 7: CAPD users are advised to consume foods containing:

Diagram 2: Food Pattern

Diagram 2 shows most respondents chose high protein as the answer for the food pattern recommended for the CAPD patients which is correct (n=16 or 62%).

Question number 8: The CAPD nurse's job is to help explain the CAPD process before washing independently at home. All respondents (100%) chose 'True', which is the correct answer.

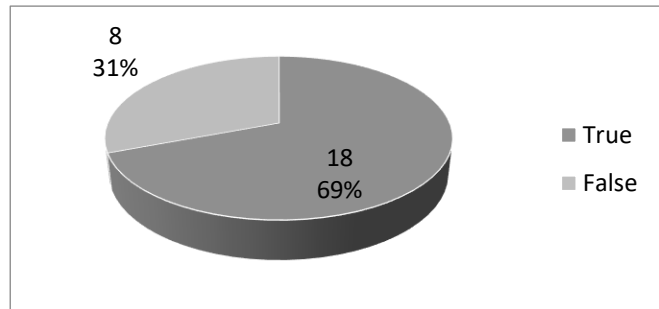Question number 9: CAPD patients should not bathe, exercise, or do aerobics.

Chart 3: Activity of CAPD Patients

Diagram 3 shows most respondents chose that CAPD patients are not allowed to take showers, do exercise or aerobics which is the correct answer (n=18 or 69%).

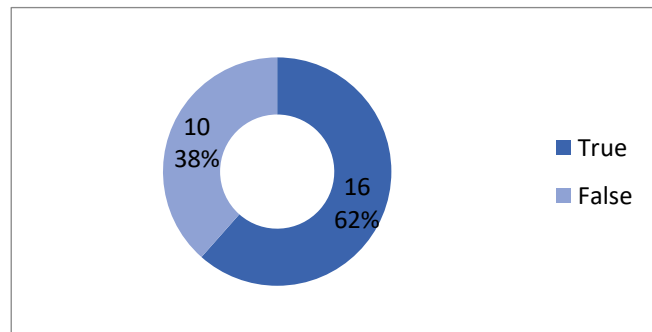Question number 10: Patients with CAPD therapy need a long journey.

Chart 4: CAPD Therapy Requires A Long Process

Diagram 4 shows most respondents chose CAPD therapy requiring a long process which is the correct answer (n=16 or 62%).

Analysis

From the results of existing studies and some of the problems encountered it can be analyzed that firstly, the Daya Health Center is relatively new organization. With all the limitations of existing human resources and programs, the Daya Health Center has not been fully able to run the program as run by other Community Health Centers with more established resources in Makassar, where the programs that are implemented are more established and organized including the management of Non-Communicable Diseases (Non-Communicable Diseases). Infectious Diseases), such as CRF with CAPD therapy. However, the Daya Health Center has the potential to be developed in the same direction as other Health Centers that run the same programs. Secondly, the number of community nurses is 6 people and they have not received training related to CAPD which makes a lack of understanding of CAPD therapy in CKD cases. This can be seen from the answers to questions 6, 7, 9, and 10.

Discussion

The first focus of the study in the residency program carried out by the author at the Daya Health Center in lign with the Government program in handling national health issues (Afzal and Peristiowati, 2023), in addition to actual data, also conforms to the author's research interests, namely renal therapy, especially dialysis. From the results of data collection through the distribution of online questionnaires, questions number 1-10, two fundamental issues that require answers are the empowerment of community nurses in related programs in the Puskesmas, which has a minimum staff. The second one is the organization of training related to the program, in this case because the Government is promoting the establishment of CPAD Units in hospitals throughout Indonesia, it is necessary to take proactive steps also by community nurses or Puskesmas.

Demographic data in Table 1 shows the minimum number of community nurses. This problem is understandable because the Daya Health Center was relatively new, only a few years ago. It takes a lengthy process to equalize with other experienced and well-established Puskesmas. Organizational management studies prove that the imbalance between workload and employees will cause stress or job dissatisfaction (Moradi, Maghaminejad and Azizi-Fini, 2014; Uddin, 2019; Pritami *et al.*, 2021). Another consequence is the low quality of work and organizational goals are not achieved. Therefore, the policy of organizational leaders or managers is needed in dividing tasks. Gradually efforts should be made to acquire new employees, at least part-timers so that they can help overcome the existing workload. Those recommendations are also widely expressed by organizational management researchers (Widayati *et al.*, 2015; Musmiler, Arif and Wahyudi, 2020).

The second problem is the lack of understanding of community nurses on CAPD. A 3-minute video cannot be used as a material that adequately represents a person's competency in understanding renal therapy as a whole. Moreover, only 6 nurses are working. Data on the number of CAPD patients are also not adequately available. This fact can be a risk in the future if not prepared. Many researchers argue that increasing competency can be achieved through formal, semi-formal, or non-formal education (James, 2017; Yusuf, 2021). For professionals who are already working, training is one of the solutions to improve cognitive competence (Kilic *et al.*, 2017; Fukada, 2018). The problem of the lack of understanding of CAPD among community nurses at the Daya Health Center can be overcome by providing brief training or in the form of an overview of CAPD as suggested by Afzal et al in previous research (Afzal *et al.*, 2021). Therefore, researchers at the implementation and evaluation stages held hybrid training. Hybrid training is carried out to make it easier for nursing staff to work because it is flexible (Mustar, 2018; Hibob, 2020). This learning method is mostly carried out by education experts (Riplinger, Piera-Jiménez and Dooling, 2020; Mariniello *et al.*, 2021). Evaluation was carried out after the training was completed online via Google Form. The results provided a clearer picture of the level of understanding of community nurses regarding renal therapy in general and CAPD in particular. By using standard CAPD educational videos and short offline meetings, more than 80 percent of participants experienced increased understanding with scores above 90 percent.

4. Conclusion

The results of this community service-based research attempt to prove how to evaluate the level of knowledge of community nurses through educational videos about renal therapy at the Daya Health Center, Makassar City. The results of the study showed that there were two main problems, namely a shortage of community nurses and a lack of training. The results of this community service program recommend personnel management to overcome shortages and provide training to increase competence related to renal therapy, especially CAPD. The weakness of this study is that there is no supporting data on CKD or the number of CAPD patients under the monitoring of the Puskesmas. These weaknesses make it impossible to give more specific recommendations about what community nurses should do other than a basic overview of CAPD nursing. Therefore, in the future related research is needed to examine more deeply the statistical data of CKD cases and CAPD patients in the Puskesmas area.

5. Acknowledgement

6. References

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