



RESEARCH ARTICLE

An Overview of Nurses' Knowledge of the Six Rights of Injectable Drug Administration in the Treatment Room

Asmawati Gasma^{1*}, Wirawati Amin², A. Syntha Ida³, M.Nasir⁴, Abd Rahman⁵, Ike Nurjanah Thamrin⁶, Agussalim^{7*}

^{1,2,3} Makassar Midwifery School, Makassar Health Polytechnic, Makassar City, South Sulawesi Province, Indonesia.

^{4,5,6,7} Parepare School of Nursing, Makassar Health Polytechnic, Parepare City, South Sulawesi Province, Indonesia

ARTICLE INFO	ABSTRACT
Received: May 22, 2024	<p>Nurses are people who are tasked to support in facilitating the suffering experienced by patients so that the problems experienced are not getting worse and affect the safety and security of patients in hospitals. Therefore it is expected that nurses do not make mistakes in the treatment procedures for patients. Errors in Drug Administration due to the actions taken by nurses are less in line with Standard Operating Procedures (SOP) in hospitals, consequently causing the possibility of many events regarding errors regarding drugs each year. The purpose of this study was to obtain an overview of the knowledge of nurses on the actions of six rights injection drug administration in the treatment room of Andi Makkasau hospital in Parepare City. The research method used in this scientific paper is descriptive research that focused on accumulating detailed information about the state of the symptoms studied as stated at this time by using a questionnaire carried out in the treatment Andi Makkasau hospital in Parepare City. From the results of research that it shows of 30 respondents, all nurses in the teratai, nusa indah, and seruni treatment rooms have good knowledge giving injection to the patients.</p>
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*Corresponding Author:	
salim170878@gmail.com	

INTRODUCTION

Nurses are people who are tasked with supporting in facilitating the suffering experienced by patients so that the problems experienced are not getting worse and affect the safety and security of patients in the hospital, therefore it is expected that nurses do not make mistakes in the treatment procedure for patients. (Setianingsih, 2020). The role of the nurse should be to provide nursing care both independently and collaboratively. Nurses also have duties or authority when administering drugs as prescribed by doctors to patients ((UU RI, 2014) in Setianingsih, 2020).

Nurses are in charge of ensuring the administration of drugs is safe and monitor the effects resulting from the drugs given to patients. As for the less safe forms of Drug Administration procedures such as illogical drug prescriptions, estimates when dispensing drugs are wrong, as well as the wrong type of drug stock. One of the tasks carried out by nurses is to know the fundamental principles in terms of Drug Administration, namely the principle of "Six Rights" such as true patient, true drug, true dose, true Time, true method of administration, and the correct way to document it. (Setianingsih, 2020).

Drug therapy intended for patients has a variety of different types so that many pose a risk of drug errors, while patients in the treatment room in the ward there are quite a lot also with drugs of different types for each patient. Errors in Drug Administration due to the actions taken by nurses are less in line with Standard Operating Procedures (SOP) in hospitals, consequently causing the possibility of many events regarding errors regarding drugs each year (Pranami, 2016). The *Joint Commission International* (JCI) and *World Health Organization* (WHO) said that 70% of drug delivery errors resulting in permanent disability still occur in some countries (Pakpahan et al 2023).

Medical errors in the United States affect 44,000 to 98,000 patients who die each year and half of these events are related to medication errors. In Indonesia itself has not been systematically recorded for errors when administering drugs and reporting systems that should be documented have not been fully implemented (Marisa Manik, 2021). In the Andi Makkasau hospital in Parepare City in 2023, data found that there were 21 patient safety incidents, including four reports of errors in drug-related matters.

On the results of research from Wardani & Robie, (2016) at Dr. H. Soewondo Kendal proved that knowledge about the application of the six right principle is wrong done by nurses as much as 41.8% with most of the incorrect time of administration according to instructions (41, 8 %). Reinforced by the results of research (Fatimah and Rosa, 2014) that the knowledge of nurses related to the principle of Drug Administration in the majority category is sufficient (59.4%) it is not in line with the results of research Hilmawan et al., (2014) which proves that almost all or most nurses apply the six rights of Drug Administration 62.2% correctly and have an impact on patient satisfaction. In line with the results of the study (Purnami, 2018) which proved that from 83 respondents, 80 nurses (96.4%) knew how to apply the principles of Drug Administration correctly and as many as 3 nurses (3.6%) who still lack knowledge related to the application of the principles of injection drug administration.

Based on the results of the study above, it is clear that not all nurses can apply the six rights when administering drugs to patients. From this description, The reason for the researchers to see a picture of the knowledge of nurses about the action of six rights injection drug administration in the treatment room of Andi Makkasau Hospital.

RESEARCH METHODS

The type of research that will be carried out in this scientific paper is using non-experimental techniques using quantitative types of research. The research that will be carried out also uses a descriptive research design. Descriptive research the goal is not to attract a broad universalization of the conditions under study. Instead, the focus is to accumulate detailed information about the state of the symptoms studied as currently listed. (Hikmawati, 2020).

Descriptive studies often observe the growth and prevalence of certain physical infrastructures, such as social phenomena. The social phenomenon in question is a problem of social interaction, and so forth. In descriptive research there is no hypothesis. In cross-sectional Method Research researchers usually carry out observations and measurements of variables at the same time, the point is the subject is only observed once and at the time of examination the subject variable measurements. In the cross-sectional study was not conducted follow-up measurements by researchers because it aims to determine the picture of the knowledge of nurses to the six rights Action of injection drug administration (Adipra, 2021). Population is all the elements in the study, including subjects and objects with certain characteristics. (Amen, 2023). The population in this study were all nurses who served in the treatment room of Andi Makkasau PAREPARE hospital were 284 nurses in different rooms.

The sample is simply defined to be a portion of the population that is the origin of the actual data in the study. The sample is a part of the population to be representative of the entire population (Amen, 2023). The sample in this study used random sampling technique where the sample was taken from

a random population of 30 nurses which is criteria, nurses in the treatment room who work as executors, and nurses who are active in the health service, not while on duty studying or taking part in training outside the hospital grounds, and nurses who can and are willing to be a respondent and involved in the study, evidenced by the signature on the consent file to be a respondent.

The focus of the case study in this study is a description of the knowledge of nurses on the action of six rights injection drug administration in the treatment room of Andi Makkasau hospital in parepare city. Primary Data is data obtained from the subject of research directly, meaning data obtained from the first source. Secondary Data include the general condition and population of the study site in the can of the Regional General Hospital Andi Makkasau Parepare City. The instrument used is a questionnaire with a guttman scale consisting of 20 statements where only two alternative answers are provided and respondents can only choose one of them such as true (1) and false (0).

Ethics in conducting nursing research is very important considering that when conducting research is clearly directly related to humans, so in terms of ethics must be considered. Researchers member questionnaire on the subject of research with more attention to ethical issues, among others: Informed consent, Is the way researchers seek the consent of the respondent to give consent sheet. The approval sheet that has been prepared is then given to respondents who are likely to be included in the inclusion criteria. When the respondent is ready, they must sign the agreement. If the subject refuses to be examined, the researcher will respect the rights of the respondent, Without name (anonymity) Is one of the ethics of research where on the questionnaire sheet or data collection respondents do not give names but only write initials. In order to maintain the confidentiality of researchers only give the code or initials on the questionnaire sheet, and confidentiality is one of the research ethics in which the confidentiality of the respondents will be guaranteed by the researcher and only certain groups will be conveyed as a result of the research.

RESULTS

Based on the results of processing and analysis of data that have been equated with the research objectives to be achieved can be presented a table of research results as follows:

a. Frequency distribution of respondents by age

Table 1: Frequency distribution of nurse knowledge on six rights injection drug administration based on age in the treatment room of Andi Makkasau Regional General Hospital Parepare city

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25 years old	3	10.0	10.0	10.0
	26-35 years old	9	30.0	30.0	40.0
	36-45 years old	14	46.7	46.7	86.7
	46-55 years old	3	10.0	10.0	96.7
	56-65 years old	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Source: Primary Data

In Table 1 shows the largest number of respondents in the age group 36-45 years of 14 people (46.7 %) and the least number of age group 56-65 years of 1 person (3.3%)

b. Frequency distribution of respondents by gender

Table 2: Frequency distribution of nurse knowledge on six rights injection drug administration based on gender in Andi Makkasau Regional General Hospital Parepare city

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	L	2	6.7	6.7	6.7
	P	28	93.3	93.3	100.0
	Total	30	100.0	100.0	

Source: Primary Data

In Table 2 shows that of the 30 respondents, more nurses are female, namely 28 people (93.3%) and 2 people are male (6.7%)

c. Frequency distribution of respondents based on education

Table 3: Frequency distribution of nurses ' knowledge of the six rights action of injection drug administration based on education in the treatment room of Andi Makkasau Regional General Hospital in Parepare city

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D3	9	30.0	30.0	30.0
	NERS	9	30.0	30.0	60.0
	S1	11	36.7	36.7	96.7
	S2	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

Source: Primary Data

In Table 3 shows that of the 30 respondents there are 1 (3.3%) nurses with S2 education, there are 9 (30.0%) nurses with NERS education, there are 11 (36.7%) nurses with S1 education, and a total of 9 (30.0%) nurses with D3 education.

1. Variables studied

Table 4: Frequency distribution of Nurse Knowledge on six Rights injection Drug Administration based on knowledge in the treatment room of Andi Makkasau Regional General Hospital Parepare

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12	1	3.3	3.3	3.3

	16	1	3.3	3.3	6.7
	17	10	33.3	33.3	40.0
	18	7	23.3	23.3	63.3
	19	1	3.3	3.3	66.7
	20	10	33.3	33.3	100.0
	Total	30	100.0	100.0	

Criteria					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	30	100.0	100.0	100.0

Source: Primary Data

In Table 4 shows that of the 30 respondents there are 30 (100%) nurses whose knowledge of the action of six rights injection drug administration in the good category, and as many as 0 (0%) nurses whose knowledge of the action of six rights injection drug administration in the less category.

DISCUSSION

The results showed that of the 30 respondents obtained 30 (100%) nurses whose knowledge accordance to action six rights injection drug administration in the category of good, and as many as 0 (0%) nurses whose knowledge of action six rights injection drug administration in the category of less. Apart from this, there 1 (3.3%) nurses with S2 level, there are 9 (30.0%) nurses with Ners level, there are 11 (36.7%) nurses with S1 level, and there are 9 (30.0%) nurses with D3 level which means that level affects a person's knowledge.

In accordance with The Theory of Harmiady in Purnami (2018) that the shrewdness of nurses when performing the principle of Drug Administration is due to the high level of education because it can be a consideration of the knowledge of nurses in the methods that exist in the workplace environment.

This is supported by previous researchers conducted by (Purnami, 2018) who prove that from 83 respondents, 80 nurses (96.4%) have known how to apply the principle of Drug Administration appropriately and as many as 3 nurses (3.6%) who still lack knowledge related to the application of the principle of injection drug administration. In accordance with the demographic data indicated that the results of the study age distribution table of respondents which states most respondents aged 36-45 years with a total of 14 (46.7 %) nurses, the rest aged 17-25 a number of 3 (10.0%) nurses, aged 26-35 years a number of 9 (30.0%) nurses, aged 46-55 years a number of 3 (10.0%) nurses and at least the age group of 56-65 years ie 1 person (3.3%).

This is in accordance with the theory of Wawan & Dewi (2016) that a person's age when increasing will occur transformation in physical, psychiatric, and psychological. On the psychological aspect of a person's way of processing the mind will be more mature.

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REFERENCES

- My Son, I. S. (2021). *Health Research Methodology*. Our Foundation Writes.
- Alini, T. (2021). The Relationship Of Knowledge With The Attitude Of Pregnant Women About The Usefulness Of Kia Books. *Jurnal Ilmiah Maksitek, Vol 6 No 3*.
- Amen, N. F. (2023). General Concept Of Population And Sample In The Study. *Pilar Journal: Journal Of Islamic Studies Kontenporer, 14 No 1*.
- Fatima, F. S. (2014). *Effectiveness Of Patient Safety Training: S-Bar Communication On Nurses In Reducing Injection Drug Administration Errors In PKU Muhammadiyah Yogyakarta Hospital Unit Ii*. Yogyakarta.
- Harefa, C. K. (2022). *Gambaran Pengetahuan Perawat Terhadap Penerapan Patient Safety Di Rs Santa Elisabeth Medan*. Terrain.
- Wisdom. (2020). *Research Methodology*. Depok: Pt Rajagrafindo Persada.
- Manik, M. (2020). Compliance Nurse In The Application Of Five Correct Drug Administration. *Information Media, Vol 16 No 1, 25*.
- Manullang, D. P. (2015). *Nurse Motivation Relationship With The Application Of The Six Principles True In The Administration Of Drugs In The Inpatient Hospital Doloksanggul Kab. Humbahas*.
- Terrain. Niza, Y. (2021). The Relationship Of Nurse Knowledge With The Implementation Of Patient Safety Targets At Fuang Inpatient RSU Metro Medical Center Lhukseumawe City. *Thesis*.
- Notoadmojo. (2018). *Health Research Methods*. Jakarta: Rineka Cipta.
- Pakpahan, H. M. (2023). Application Of Six Correct Drug Administration In Bidadari Binjai Hospital. *Jurnal Darma Agung Husada, Vol 10 No 1, 9*.
- Paloloan. (2022). Casement Overview Of Knowledge, Attitudes And Skills Of Nurses In The Prevention Of The Risk Of Falling At Unhas Hospital. *Thesis*.
- Pranami, R. (2016). Description Of Drug Administration With Principle 7 Right By Nurses In Rsu Pku Muhammadiyah Bantul. *Publication Script*.
- Setianingsih. (2020). Descriptive Study Of The Application Of The "Six Exact" Principles In Drug Administration. *Journal Of Research And Scientific Thought Vol. 6 Issue 2, 88-95*.
- Setyawati. (2023). *Research Research Methodology*. New York: Eureka Press.