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The Role Of The Nurse In Drug Administration

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Abstract

Introduction: Drug administration is one of the most overlooked aspects in the treatment of various diseases. Therefore, the role and importance of the nurse is high, equivalent to the level of responsibility.
The purpose of the paper: The purpose of this research is to present the role of the nurse in the administration of drugs.
Methodology; We have approached this thesis using the quantitative method, also using international and local literature such as scientific papers, magazines, books, etc. The instrument used is from the authors Fathy, et al (2020). And it's named the Nurse Medication Error Observation Checklist: The observation checklist was developed by researchers based on a thorough literature review and was used to assess nurses' medication administration practices. The entire checklist included several action steps. The checklist included three main categories; nursing performance during the preparation of nursing practices during the administration of medications nursing practices after the administration of medications. The sample of this thesis was a total of 60 nurses in the Gjakova region, of whom there were different ages, with different work experience and with different levels of school preparation.
Conclusions: 91.7% of nurses read the doctor's prescription without difficulty. 73.3% of nurses label medications. 75% of nurses check the expiration date of medications, so a percentage of 25% of nurses do not practice this habit, which is a necessity and a risk for patients. Only 51.7% of the nurses take the trouble to check the instructions regarding the way to take the drugs eg on an empty stomach. While 48.3% of them do not respect this rule. 25% of nurses indicate that sometimes they do not take into account the recommended dose during different combinations, etc. Regarding their level of responsibility, it can be seen that more than 50% of nurses are at a considerable level of responsibility during the administration of drugs.

Keywords – Medicines, administration, combination, control, responsibility.

I. INTRODUCTION

The role of the nurse is undoubtedly a very important role in the treatment of patients, of course they have different responsibilities and one of their responsibilities is the administration of drugs. This is a challenge for which nurses are and should be well prepared. As they should have their maximum care in the administration of medicines because knowledge, cleanliness, timely response and many other issues are required there.

Medication administration is a daily activity that carries great responsibility and one of the most dangerous areas in nursing practice. Nurses are responsible for the administration of drugs by various methods and responsible for the safe administration of the drug.

There are various routes of administration available, each with specific advantages, disadvantages, and purposes that must be considered before being prescribed or administered. All routes of drug administration must be understood in terms of their implications for the effectiveness of drug therapy and the patient's experience of its effects during treatment. The main consequences of medication administration errors are directly related to the patient in terms of morbidity and mortality. But any medication error can also indirectly affect patients, families and healthcare providers through cost implications, prolonged

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hospital stays and psychological impact as any error can have a major impact on public confidence, as well as in health care services. Drug calculations can be very complex and proficiency in math skills is required for safe drug administration. Bolus fluid and tablet formulations are generally easy to calculate, but pediatric medications or continuous I.V. Infusions of specific medications such as heparin, insulin, and vasopressors may involve some more complex calculations that require prior preparation and training.

Considering all this, it is clearly seen that the administration of drugs by nurses requires preparation, proof, cleanliness, and above all, the patient's life is at stake. Therefore, nurses are required to be aware, prepared, and they carry a high responsibility on their shoulders.

Nursing concept. In 1970, Virginia Henderson stated that the concept of nursing is: "a service that assists human beings with their essential daily activities when they lack the strength, knowledge, or will to perform them unaided and in the work towards development of a healthy independence". Medication management is one of the components of palliative care that aims to improve the quality of life of patients facing a life-limiting illness. Medication management in palliative care is challenging. Regardless of all sources, patient symptom burden is generally high (Chaudhry, et al 2013). The broad scope of palliative care, which includes various diseases and recently diagnosed incurable diseases, as well as the terminal stage, makes it even more complex. The disadvantages of some medications may outweigh the benefits at the end of life. Potentially inappropriate medications are medications that should be reviewed because they have a significant risk of adverse events, for which there is evidence for an alternative therapy that is equally or more effective but with lower risk, medications that are prescribed with a lower frequency high or for a longer period than clinically indicated, or medications with known drug-drug or drug-disease interactions (Gallagher, et al 2007). This is especially true for medications prescribed for the treatment of co-morbidities or long-term prevention (Cruikshank, et al 2013).

Doctors are primarily responsible for pharmacological treatment (GMC, 2013). However, several studies show that it is not self-evident that doctors review the drugs used by patients with limited life expectancy and that they report a variety of reasons for not considering prescribing PIMs. Perhaps the most important reason for not considering prescribing is limited awareness (Geijteman, et al 2016). Other reasons are that it is given a low priority, uncertainty about the consequences of prescribing medications, and the avoidance of confronting patients with their imminent death (Geijteman, et al 2016). Furthermore, barriers to adequate medication management exist at the level of health care organization, namely lack of organizational support, lack of staff, lack of time and difficult to access patient medical records (Paque, et al 2019). Other barriers occur in communication and collaboration between doctors and nurses (Paque, et al 2019), especially in the interfaces between primary, secondary and tertiary care. Further, the nature of the doctor-nurse relationship and the hierarchies in place may prevent nurses from actively discussing their suggestions regarding medication (Paque, et al 2019). Physician barriers and the interdisciplinarity of end-of-life care raise questions about the role of nurses in medication management. Nurses have an important role in palliative care and symptom relief (Witt, et al 2015). A qualitative systematic meta-synthesis revealed nurses' views on their role in providing palliative care. They feel that they contribute to the coordination and continuity of care and to ensure that care is patient-centered and adequately addresses patients' needs (Sekse, et al 2018). Literature on the role of nurses in medication management in palliative care is lacking.

Several studies describe the significant role of nurses in the treatment of polypharmacy in the elderly at home or in long-term care facilities (Riker, Setter, 2013). Others emphasize their role in the administration of palliative chemotherapy (Nappa, et al 2014) or the administration of premedication for people who are dying (Bowers, et al 2017). Wilson et al. found that there are significant differences in the level of education of nurses, specialist nurses and nurse practitioners that may affect their role in medication management (Wilson, et al 2017). Previous studies about the role of nurses in palliative care or medication management are mainly based on the perspective of nurses themselves (Wilson, et al 2017).

Medicines are important to prevent and treat disease, to improve a symptom or for diagnostic purposes, and to induce anesthesia. Medicine saves lives, prolongs life, relieves suffering and symptoms. Today, about 10,000 drugs are available for prescription worldwide (Leape et al. 1995) and about 6,000 different drugs are used in Sweden, 6.2 million individuals received at least one drug distributed over 12 months in 2006, thus a prevalence of 67.4% (Hovstadius et al. 2009). In an ideal world, every patient receives appropriate screening and is correctly diagnosed, and drugs are used as intended and optimally, treatment and monitoring are optimal based on reliable evidence and experience and tailored to the individual patient. In an ideal world, all healthcare personnel who administer medications are aware of the risk of causing harm to the patient and therefore perform all steps in the

medication process with the utmost care to avoid medication errors. Organizations have clear and safe guidelines and methods to avoid medication errors and promote perfect medication handling. But we don't live in this ideal world. Whenever a patient is treated with one or more drugs, drug-related problems can occur (Hovstadius et al. 2009).

Responsibilities of the nurse

Drug therapy plays a major role in the treatment of patients. Traditionally, medicines have been prescribed by doctors and the nurse's responsibility has been to ensure safe and reliable administration and to monitor for side effects. However, in 1994 the law was changed to allow district nurses and health visitors employed across England to prescribe from a limited formulary. Many of the preparations they were initially able to prescribe were for over-the-counter preparations. In 1998 it became possible for all suitably qualified community nurses to prescribe from a limited nursing form. From 2003, any registered nurse could undertake training to enable them to become a nurse prescriber and prescribe from an Extended Nurse Prescribing Formulary. In 2006, the law changed again, enabling nurses who had undergone the necessary training to prescribe from the full range of drugs on the British National Formulary (except the most controlled drugs) provided it was within their scope of practice competence (NA, 2018).

II. METHODOLOGY

We have approached this thesis using the quantitative method, also using international and local literature such as scientific papers, magazines, books, etc.

The instrument used is from the authors Fathy, et al (2020). And it's named the Nurse Medication Error Observation Checklist: The observation checklist was developed by researchers based on a thorough literature review and was used to assess nurses' medication administration practices. The entire checklist included several action steps. The checklist included three main categories; nursing performance during preparation, nursing practices during medication administration, and nursing practices after medication administration. The sample of this diploma thesis was a total of 60 nurses in the Gjakova region, of which there were different ages, with different work experiences such as and with school preparation of different levels

III. RESULTS

From table 1 we see that out of 60 respondents, 31.7% were male and 68.3% were female. So from table 1 we see that the largest number of participants were female.

Table 1. Your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	19	31.7	31.7	31.7
	Female	41	68.3	68.3	100.0
	Total	60	100.0	100.0	

From table 2 we see that participants in the research were mainly the dominant age from 31 to 40 years old with a total of 51.7% of the sample while the age from 21 to 30 years old was participating in the research 38.3% of the sample and the age from 41 to 50 years old was 10% of the sample.

Table 2. Your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 - 30 years old	23	38.3	38.3	38.3
	31 - 40 years old	31	51.7	51.7	90.0
	41 - 50 years old	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

From table 3 we see that the work experience of the sample was mainly that of 5 to 10 years of work experience with a total of 65% of the sample, while 11 to 15 years of work experience were 28.3% of the sample while 1 to 5 years were only 6.7% of the sample. So from this we see that as far as work proof is concerned, the sample is considered as having great work proof.

Table 3. Proof of work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 5 years	4	6.7	6.7	6.7
	5 - 10 years	39	65.0	65.0	71.7
	11 - 15years	17	28.3	28.3	100.0
	Total	60	100.0	100.0	

From table 4 we see that a total of 96.7% of the participants were nurses with a Bachelor's degree, while 3.3% were with a Master's degree in nursing sciences.

Table 4. Your level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BSc	58	96.7	96.7	96.7
	MSc	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

From table 5 we see that each nurse always looks at the doctor's prescription to see if it is valid before starting to give the medication. So this is a practice for all nurses who were participants in the research.

Table 5. Check if there is a valid and clear prescription for each medication on the medication administration card signed by the prescribing physician?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	100.0	100.0	100.0

Also from table 6 we see that every nurse washed their hands before every intervention or administration of medication, even though they use hygienic gloves almost every time.

Table 6. Wash hands before administering medications?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	100.0	100.0	100.0

From table 7 we see that before each administration of medications in case of need they use special containers or trays and for this statement they have said that they use 58.3% of nurses while 41.7% of nurses do not.

Table 7. Do you prepare any special containers or trays for medication administration?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	58.3	58.3	58.3
	No	25	41.7	41.7	100.0
	Total	60	100.0	100.0	

From table 8 we see that nurses have no difficulty in reading the prescriptions prescribed by the doctor, and that 91.7% of them read the doctor's prescription without any difficulty. While 8.3% have problems with the proper reading of the doctor's prescription.

Table 8. Do you read the prescription of drugs without difficulty?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	55	91.7	91.7	91.7
	No	5	8.3	8.3	100.0
	Total	60	100.0	100.0	

From table 9, we see that regarding the labeling of medications, 73.3% of nurses state that they do, while 26.7% of them do not label medications before their administration.

Table 9. Labels the medication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	44	73.3	73.3	73.3
	No	16	26.7	26.7	100.0
	Total	60	100.0	100.0	

From table 10 we see that only 75% of nurses look at the expiration date of the medication before using it on patients, the concern is that 25% of the nurses do not bother to look at least the expiration date.

Table 10. Check the drug's expiration date

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	75.0	75.0	75.0
	No	15	25.0	25.0	100.0
	Total	60	100.0	100.0	

From table 11, we see that 48.3% of nurses do not follow the recommendations for the use of medications according to the instructions in full, empty, etc., so only 51.7% of nurses respect this principle.

Table 11. Checks that specific instructions regarding the administration of certain drugs are followed, e.g. If the drugs are advantageously taken on an empty stomach?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	51.7	51.7	51.7
	No	29	48.3	48.3	100.0
	Total	60	100.0	100.0	

From table 12 we see that only 75% of nurses give the dose correctly, so by self-declaration they claim that only 75% of them give the dose correctly while 25% of them do not administer the dose correctly.

Table 12. Administer the dose correctly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	75.0	75.0	75.0
	No	15	25.0	25.0	100.0
	Total	60	100.0	100.0	

From table 13, we see that 93.3% of nurses observe patients for the appearance of any allergic reaction after the administration of medications, while only 6.7% of nurses do not have the habit or do not do such an action.

Table 13. Monitor patients for side effects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	56	93.3	93.3	93.3
	No	4	6.7	6.7	100.0
	Total	60	100.0	100.0	

From table 14 we see that 68.3% of nurses do not look at or ask patients if they have any allergies, while only 31.7% of nurses perform this very important question.

Table 14. Checks if the patient has any known allergies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	31.7	31.7	31.7
	No	41	68.3	68.3	100.0
	Total	60	100.0	100.0	

From table 15, we see that 90% of the nurses observe the time set to give the medications, while only 10% of them do not consider this time according to their self-declaration.

Table 15. Does it check the specific time that each medication should be given?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	54	90.0	90.0	90.0
	No	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

From table 16 we see that regarding the recommended dose, each nurse looks at the dose and then administers the medication to the patients.

Table 16. Check the prescribed dose of each drug?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	100.0	100.0	100.0

From table 17 we see that only 26.7% of nurses communicate information before administering medications, while 73.3% of nurses do not communicate at all with patients regarding medications or their administration.

Table 17. Communicate information sensitively to the patient before and during medication administration?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	26.7	26.7	26.7
	No	44	73.3	73.3	100.0
	Total	60	100.0	100.0	

From table 18 we see that after administering medications only 55% of nurses stay with the patient while he or she receives the appropriate treatment. While 45% of nurses do not stay at all.

Table 18. Do you stay with the patient while he/she is taking the medications?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	33	55.0	55.0	55.0
	No	27	45.0	45.0	100.0
	Total	60	100.0	100.0	

From table 19, we see that 50% of nurses note any delay or omission during medication administration, while the rest do not record these delays or omissions at all.

Table 19. Do you document any delays or omissions in the nursing notes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	50.0	50.0	50.0
	No	30	50.0	50.0	100.0
	Total	60	100.0	100.0	

From table 20 we see that nurses with 90% of them throw away the unused items by destroying them or throwing them in the garbage or the corresponding container which they no longer use, while only 10% of the nurses do not respect this procedure.

Table 20. Dispose of un administered and unused medications or sharps in the appropriate sealed container.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	54	90.0	90.0	90.0
	No	6	10.0	10.0	100.0
	Total	60	100.0	100.0	

From table 21, we see that 55% of the nurses stay and observe the patient for a few minutes for any possible allergy, while 45% of the rest do not stay with the patient at all after administering the medication.

Table 21. Stay with the patient for a few minutes and observe for any allergic reactions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	33	55.0	55.0	55.0
	No	27	45.0	45.0	100.0
	Total	60	100.0	100.0	

From table 22 we see that 100% of nurses report any abnormal findings they encounter in patients and for this they inform the doctor every time. This is a very important aspect and one that should not be neglected by nurses as the patient's life depends on them.

Table 22. Report abnormal findings to the doctor?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	100.0	100.0	100.0

From table 23 we see that 58.3% of nurses demonstrate their knowledge about their medications with patients while 41.7% of them do not do this which is very humane and calms or relaxes the patient.

Table 23. Demonstrate knowledge of medications administered to the patient?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	41.7	41.7	41.7
	No	35	58.3	58.3	100.0
	Total	60	100.0	100.0	

IV. Discussions and Conclusions

The role of nurses in the administration of drugs plays a great importance in terms of patient treatment in the conducted research, the participants were a total of 60 nurses of which 68.3% were women and 31.7% were men. According to the level of education, the dominant degree was Bsc with a total of 96.7% of nurses. Over 65% of the nurses had work experience from 5 to 10 years. Regarding the level of responsibility and their role, they said that 100% of them do not proceed with the medication without a doctor's prescription. Also according to their level of responsibility they constantly clean their hands before giving the medications. Only 58.3% of nurses prepare medications in a separate container or tray. 91.7% of nurses read the doctor's prescription without difficulty. 73.3% of nurses label medications. 75% of nurses check the expiration date of medications, so a percentage of 25% of nurses do not practice this habit, which is a necessity and a risk for patients. Only 51.7% of the nurses take the trouble to check the instructions regarding the way to take the drugs eg on an empty stomach. While 48.3% of them do not respect this rule. 25% of nurses indicate that sometimes they do not take into account the recommended dose during different combinations, etc. While 75% of other nurses consider this aspect. 93.3% of nurses observe patients for possible side effects during drug administration. Only 31.7% of nurses check patients for any known allergies. While 68.3% of them do not consider this aspect. 90% of the nurses have as a rule to check the time set for the administration of medications, while 10% do not comply as they have stated from time to time. 100% of nurses check the dosage of each drug. Only 26.7% of nurses communicate sensitive information to the patient before and during medication administration. Meanwhile, 73.3% of them declared no. 55% of nurses stay with the patient while he is receiving the medication, while 45% of them do not stay the whole time. 50% of nurses do

not record any errors or omissions in the nursing notes related to the administration of medications. This is definitely worrying as all omissions, delays, etc. should be in the register. As they are necessary in the stages of patient treatment. In percentage of 90% of Nurses dispose of medications or sharps in a closed container. Only 55% of nurses stay a few minutes with the patient to see any allergies while 45% do not stay at all. 100% of nurses report abnormal findings to the physician. Only 41.7% of nurses demonstrate their knowledge with the patient regarding the administered drugs or medications, while 58.3% of the rest do not take the trouble to clarify or relax the patient. Only 40% of nurses take care that the patient gets the right information about their treatment.

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