DOI: 10.12923/pielxxiw-2024-0048

The importance of patient involvement in safe medication administration in a healthcare facility

Znaczenie zaangażowania pacjenta w bezpieczne podawanie leków w placówce opieki zdrowotnej

Hana Kubešová[1,3,A-I,K], Valérie Tóthová[1,A,D-J], Iva Brabcová[1,A-B,D,I-J], Radka Prokešová[2,A-E,G-I,K-L], Martin Červený[1,A-B,D,G-I,K], Hana Hajduchová[1,A,D-E,G]

[1]Institute of Nursing, Midwifery and Emergency Care, University of South Bohemia in Ceske Budejovice, Faculty of Health and Social Sciences, Czech Republic
[2]Institute of Humanities in Helping Professions, University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Czech Republic
[3]České Budějovice Hospital, České Budějovice, Czech Republic

CORRESPONDING AUTHOR:
Hana Kubešová
Institute of Nursing, Midwifery and Emergency Care, University of South Bohemia in Ceske Budejovice, Faculty of Health and Social Sciences, Czech Republic
e-mail: kubesova.hana@nemcb.cz

A – Development of the concept and methodology of the study/Opracowanie koncepcji i metodologii badań; B – Query - a review and analysis of the literature/Kwerenda – przegląd i analiza literatury przedmiotu; C – Submission of the application to the appropriate Bioethics Committee/Złożenie wniosku do właściwej Komisji Biotycznej; D – Collection of research material/Gromadzenie materiału badawczego; E – Analysis of the research material/Analiza materiału badawczego; F – Preparation of draft version of manuscript/Przygotowanie roboczej wersji artykułu; G – Critical analysis of manuscript draft version/Analiza krytyczna roboczej wersji artykułu; H – Statistical analysis of the research material/Analiza statystyczna materiału badawczego; I – Interpretation of the performed statistical analysis/Interpretacja dokonanej analizy statystycznej; K – Technical preparation of manuscript in accordance with the journal regulations/Opracowanie techniczne artykułu zgodne z regulaminem czasopisma; L – Supervision of the research and preparation of the manuscript/Nadzór nad przebiegiem badań i przygotowaniem artykułu

STRESZCZENIE

ZNACZENIE ZAANGAŻOWANIA PACJENTA W BEZPIECZNE PODAWANIE LEKÓW W PLACÓWCE OPIEKI ZDROWOTNEJ

Cel pracy. Celem badania była ocena subiektywnego postrzegania przez pacjentów podawania leków w warunkach szpitalnych oraz ocena ich zaangażowania w ten proces.

Materiał i metody. Dane badawcze zebrano za pomocą ustrukturyzowanego kwestionariusza. Do badania włączono łącznie 300 respondentów z czterech szpitali w regionie południowych Czech, którzy byli hospitalizowani na oddziale opieki pooperacyjnej i rehabilitacji, oddziale chirurgicznym i oddziale chorób wewnętrznych.

Wyniki. Z perspektywy pacjenta nastąpiła znaczna poprawa w zachowaniu pielęgniarek podczas procesu podawania leków. Pielęgniarki zwracają większą uwagę na identyfikację pacjenta, czekają, aż pacjent połknie lek, nie kładą leku na stole pacjenta i zdają sobie sprawę, że ich koncentracja podczas podawania leków ma kluczowe znaczenie dla bezpieczeństwa całego procesu.

Wnioski. Kluczowe aspekty zaangażowania pacjenta w proces obejmują właściwą identyfikację pacjenta, identyfikację właściwego leku i właściwą metodę podawania, w tym dokumentowanie procesu w dokumentacji pacjenta i zgłaszanie wszelkich zdarzeń niepożądanych. Takie kompleksowe podejście do zaangażowania pacjenta w podawanie leków przyczynia się do bezpieczeństwa i jakości opieki.

Słowa kluczowe: pacjent, zdarzenie niepożądane, błąd lekowy, podawanie leków

ABSTRACT

THE IMPORTANCE OF PATIENT INVOLVEMENT IN SAFE MEDICATION ADMINISTRATION IN A HEALTHCARE FACILITY

Aim. This study aimed to evaluate patients' subjective perceptions of medication administration in the hospital setting and assess their involvement in the process.

Material and methods. The research data were collected using a structured questionnaire. A total of 300 respondents from four hospitals in the South Bohemia region of the Czech Republic, who were hospitalized in the aftercare and rehabilitation department, surgical department, and internal medicine department, were included in the research.

Results. From the patient's perspective, there was a significant improvement in the nurses' behavior during the medication administration process. Nurses pay more attention to patient identification, wait for the patient to swallow the medication, do not put the medication on the patient's table, and realize that their concentration during medication administration is critical to making the entire process safe.

Conclusions. Key aspects of patient engagement in the process include proper patient identification, identification of the correct medication, and proper administration method, including documenting the process in the patient's record and reporting any adverse events. This comprehensive approach to patient involvement in medication administration contributes to safety and quality of care.

Key words: patient, adverse event, medication error, Medication administration

INTRODUCTION

The World Health Organization [1] reports that millions of patients worldwide are harmed each year due to errors in the provision of health services. Patient harm has personal, social and economic impacts, resulting in losses of trillions of US dollars globally [1]. Furthermore, the World Health Organization reports that medication errors, particularly in prescription and usage, are among the most common issues in providing health services [1]. Medication errors pose a significant risk to the patient and harm the patient's health [2]. Any misconduct associated with the medication process has profound consequences for patients and their families [3]. If the malpractice reaches the patient himself, it is already an irreversible process that can have physical, but more importantly, psychological consequences [4]. For the patient and their relatives, malpractice reduces the credibility of the health system. It can also increase the patient's morbidity and lead to disability or even death. For healthcare institutions, this means increasing healthcare costs or decreasing prestige [4]. Medication errors can occur at any stage of pharmacotherapy, such as prescribing, dispensing, preparing, or administering the medication itself, including monitoring its effects [5]. The World Health Organization's [1] efforts to minimize risks are based on greater patient involvement in health care delivery, thereby increasing safe practice.

Brabcová et al. [6] state that drugs administration in healthcare facilities is one of the most crucial and risky nursing processes, with the nurse's role being pivotal. Lawton et al. [7] add that the patient's role is equally important, at their attitude can help mitigate risks in the medication administration process and enhance their safety. In their study, O'Hara et al. [8] add that the patient's perspective is a crucial point of interest for improving patient safety while emphasizing the need to obtain patient feedback on the quality and safety of healthcare. In another paper, Veverková et al. [9] emphasize proper communication techniques between the nurse and the patient during medication administration, active patient involvement, and obtaining feedback. In the study of Sharma et al. [10], it is pointed out that the issue of promoting patient involvement in drug administration safety is not fully explored. Sharma et al. further note that in recent years, there has been an increased interest in patient involvement in safety practices and a growing interest in information technology with access to various patient portals that allow patients to access information, including communication with healthcare providers [10].

AIM

The study aimed to evaluate patients' subjective perceptions of medication administration in the hospital setting, including their involvement in the process associated with medication administration.

METHODS

Research design

The presented study was cross-sectional. The researchers followed the STROBE checklist in designing it [11].

Research sample

The study included patients from four selected hospitals in the South Bohemia region of the Czech Republic who were admitted to different types of wards: surgical, internal medicine, and aftercare and rehabilitation departments. Patients whose current state of health allowed them to complete the questionnaire participated in the survey.

Research tools

The survey was conducted using a non-standardized questionnaire of our design. This research instrument was developed by Hajduchová et al. [12].

The questionnaire was structured into four main parts:

- Part A: Patient's communication with the nurse during admission to the ward
- Part B: Medication administration during hospitalization
- Part C: Patient involvement in the administration of medicines
- Part D: Errors

The questionnaire also included patient identification data, including gender, age, type of hospital, ward, highest completed education, marital status, and nationality. Responses to the questions were constructed into a seven-point scale ranging from 1 – never, 2 – very rarely, 3 – rarely, 4 – sometimes, 5 – often, 6 – very often, 7 – always. If the question did not concern the patient, they chose 0 (zero) as the answer. Patients who chose this answer were not included in evaluating statistically significant associations. Every part of the questionnaire contained 31 questions, and patients were allowed to make any comments freely in the questionnaire itself.

Data collection

Data were collected in four selected hospitals in the South Bohemia region from patients admitted to the surgical, internal medicine, aftercare, and rehabilitation departments from June to July 2023. Independent data collectors were engaged to gather information from hospitalized patients, ensuring impartiality and no affiliation with the respective hospitals. The inclusion criteria for patients in the study were: willingness to cooperate, age over 18, and hospitalization in selected settings. Exclusion criteria included unwillingness to cooperate and a serious health condition that prevented patient participation in data collection.

Statistical analysis of the data

Statistical data processing was performed using SASD 1.5.8 (Statistical Analysis of Social Data) and SPSS Statistics ver. 28. The first level of classification and contingency tables of selected indicators of the second level of classification were prepared. The degree of dependence

of the selected traits was determined based on the χ^2-test, independence test, and other test criteria applied according to the nature of the traits and the type of their distribution. Based on this analysis, data interpretation was conducted, and relevant tables were prepared. The level of statistical significance was set at $p < 0.05$, $p < 0.01$ and < 0.001, respectively.

Ethical approval

The ethics committee of the University of South Bohemia in Ceske Budejovice, Faculty of Health and Social Sciences approved the research study on 18 June 2019. The respondents who participated in the study were informed in advance of the research's focus and objectives and guaranteed that their data would be protected.

RESULTS

Demographics

Three hundred patients completed the questionnaire. The study was representative in relation to gender, age, hospital type, department type, and patient education (see Tab. 1 for complete demographic data).

Based on the average (M) and standard deviations (SD) from Tab. 2, the most critical parts of medication administration safety can be identified. Patients stated that nurses only paid attention to the patient for whom they were preparing the medication when they were administering it. Furthermore, the results show that patients received clear answers from the nurse regarding the prescribed medication. On the other hand, most patients stated that when the nurse administered the medication, she did not communicate with others.

Tab. 1. Patient demographic data

Characteristic	Participants (N = 300) [n (%)]
Gender	
Female	184 (61.3)
Male	116 (38.7)
Age	
Up to and including 45 years	50 (16.7)
46 – 60 years	73 (24.3)
61 – 75 years	100 (33.3)
76 and more years	77 (25.7)
Hospital type	
University/regional	83 (27.7)
Local/district	217 (72.3)
Department type	
Surgical	108 (36.0)
Internal medicine	120 (40.0)
Aftercare and rehabilitation	72 (24.0)
Education	
Unfinished/basic	51 (17.0)
Secondary	170 (56.7)
Higher/university	79 (26.3)

Tab. 2. Evaluation of the safety of medication administration from the patient's perspective

Questions	Mode	min-max	s^2	M ± SD
Does the nurse check the medication you have with you on admission?	7	0 - 7	8.02	4.88 ± 2.83
Does the nurse check the amount of medication you bring in?	7	0 - 7	8.31	4.61 ± 2.88
Does the nurse write down the amount of medication you have with you?	7	0 - 7	9.09	3.60 ± 3.01
Did the nurse inform you not to take the medication you brought in?	7	0 - 7	9.04	4.42 ± 3.00
Do you check that the names of medications administered by the nurse match the names of the medications you take at home?	7	0 - 7	6.82	3.60 ± 2.61
Do you check that the amount of medication administered by the nurse matches the amount of medication you take at home?	7	0 - 7	7.28	4.14 ± 2.69
Do you check the amount of medication administered by the nurse at each administration?	7	1 - 7	5.80	4.53 ± 2.40
Do you check the shape of the medication the nurse gives each time it is administered?	1	1 - 7	5.94	4.07 ± 2.43
Do you check the color of the medication the nurse gives each time it is administered?	1	1 - 7	6.19	4.01 ± 2.48
Do you ask about the names of the medications the nurse administered?	1	1 - 7	5.38	3.63 ± 2.32
Do you ask for an explanation if you find a discrepancy in the name, number, color, or shape of the medication administered?	7	0 - 7	8.90	3.59 ± 2.98
If you are given a new medication (different from what you usually take), do you ask the nurse for an explanation?	7	0 - 7	7.84	4.28 ± 2.80
If you asked about the medication the nurse gives you, did you get an understandable answer?	7	0 - 7	5.69	5.34 ± 2.38
If you do not want the medication administered, does the nurse insist that you take it?	0	0 - 7	7.26	2.11 ± 2.69
Will the nurse call the doctor if you do not want the medication administered?	0	0 - 7	8.57	2.40 ± 2.92
Is the nurse waiting for you to swallow the medication?	7	1 - 7	4.84	4.40 ± 2.20
If you are not at the bedside when your medication is administered, will the nurse leave your medication on the table?	1	1 - 7	5.77	3.74 ± 4.40
Does the nurse ask your name before giving you medication?	7	1 - 7	4.81	4.92 ± 2.19
Does the nurse check your ID bracelet before administering each medication?	7	0 - 7	5.65	4.47 ± 2.37
When the nurse administers your medication, does she communicate with another person?	1	1 - 7	2.38	1.95 ± 1.54
Does the nurse only address you when administering medication?	7	1 - 7	2.84	5.74 ± 1.68
Would you like to be more involved in deciding what medication you take?	5	1 - 5	2.11	3.20 ± 1.45
Would you like family members to be involved in decisions about your treatment?	1	1 - 5	2.45	2.99 ± 1.56
Have you ever been given a medication other than the one prescribed by your doctor?	2	1 - 3	0.29	2.23 ± 0.54

Note. M – average; SD - standard deviation; s2 – dispersion; min – minimum; max – maximum

Tab. 3. Statistical analysis of selected variables

	Questions	Age				Gender				Education				Hospital type				Department type			
		N	x^2	df	p	N	x^2	df	p	N	x^2	df	p	N	x^2	df	p	N	x^2	df	p
A	Does the nurse check the medication you have with you on admission?	237	10.747	6	0.097	237	0.856	2	0.652	237	3.445	4	0.486	237	1.495	2	0.474	237	13.469	4	<0.01**
	Does the nurse check the amount of medication you bring in?	231	5.844	6	0.441	231	3.392	2	0.183	231	6.379	4	0.173	231	7.674	2	<0.05*	231	10.191	4	<0.05*
	Does the nurse write down the amount of medication you have with you?	210	8.672	6	0.193	210	4.507	2	0.105	210	5.903	4	0.207	210	0.754	2	0.686	210	24.692	4	<0.001***
	Did the nurse inform you not to take the medication you brought in?	226	8.142	6	0.228	226	1.326	2	0.515	226	3.316	4	0.506	226	3.666	2	0.160	226	22.085	4	<0.001***
	Do you check that the names of the medications administered by the nurse match the names of the medications you take at home?	255	3.839	6	0.699	255	0.259	2	0.878	255	2.692	4	0.611	255	1.340	2	0.512	255	19.202	4	<0.001***
	Do you check that the amount of medication administered by the nurse matches the amount of medication you take at home?	257	7.760	6	0.256	257	0.092	2	0.955	257	0.828	4	0.935	257	0.692	2	0.708	257	12.375	4	<0.05*
	Do you check the amount of medication administered by the nurse at each administration?	300	11.712	6	0.069	300	0.433	2	0.805	300	0.662	4	0.956	300	2.800	2	0.247	300	9.759	4	<0.05*
	Do you check the shape of the medication the nurse gives each time it is administered?	300	11.435	6	0.076	300	1.598	2	0.450	300	0.484	4	0.975	300	1.428	2	0.490	300	11.087	4	<0.05*
	Do you check the color of the medication the nurse gives each time it is administered?	300	9.159	6	0.165	300	3.685	2	0.158	300	2.177	4	0.703	300	6.281	2	<0.05*	300	8.486	4	0.075
	Do you ask about the names of the medications the nurse administered?	300	6.724	6	0.347	300	5.288	2	0.071	300	4.529	4	0.339	300	0.136	2	0.934	300	10.066	4	<0.05*
	Do you ask for an explanation if you find a discrepancy in the name, number, color, or shape of the medication administered?	211	6.012	6	0.422	211	6.596	2	0.037	211	0.372	4	0.985	211	2.260	2	0.323	211	5.088	4	0.278
B	If you are given a new medication (different from what you usually take), do you ask the nurse for an explanation?	245	4.407	6	0.622	245	5.417	2	0.067	245	0.402	4	0.982	245	2.255	2	0.324	245	10.622	4	<0.05*
	If you asked about the medication the nurse gives you, did you get an understandable answer?	262	1.499	6	0.960	262	1.448	2	0.485	262	5.015	4	0.286	262	1.640	2	0.440	262	9.841	4	<0.05*
	If you do not want the medication administered, does the nurse insist that you take it?	136	5.300	6	0.506	136	2.978	2	0.226	136	3.412	4	0.491	136	5.633	2	0.060	136	2.104	4	0.717
	Will the nurse call the doctor if you do not want the medication administered?	137	8.092	6	0.231	137	4.422	2	0.110	137	0.655	4	0.957	137	0.080	2	0.961	137	6.550	4	0.62
	Is the nurse waiting for you to swallow the medication?	300	4.084	6	0.665	300	4.309	2	0.116	300	2.851	4	0.583	300	2.277	2	0.320	300	29.358	4	<0.001***
	If you are not at the bedside when your medication is administered, will the nurse leave your medication on the table?	300	10.856	6	0.093	300	0.494	2	0.781	300	5.951	4	0.203	300	15.871	2	<0.001***	300	6.607	4	0.158
	Does the nurse ask your name before giving you medications?	300	9.215	6	0.162	300	4.619	2	0.099	300	3.947	4	0.413	300	1.136	2	0.567	300	22.349	4	<0.001***
	Does the nurse check your ID bracelet before administering each medication?	294	8.770	6	0.187	294	6.802	2	0.033	294	4.294	4	0.368	294	8.417	2	<0.05*	294	31.763	4	<0.001***
	When the nurse administers your medication, does she communicate with another person?	300	9.877	6	0.130	300	4.899	2	0.086	300	5.354	4	0.253	300	1.312	2	0.519	300	13.365	4	<0.01**
	Does the nurse only address you when administering medication?	300	7.015	6	0.320	300	3.082	2	0.214	300	6.219	4	0.183	300	0.716	2	0.699	300	10.022	4	<0.05*
C	Would you like to be more involved in deciding what medication you take?	300	14.720	12	0.258	300	9.220	4	0.056	300	8.898	8	0.351	300	10.033	4	<0.05*	300	6.424	8	0.600
	Would you like family members to be involved in decisions about your treatment?	300	20.668	12	0.055	300	2.797	4	0.592	300	13.483	8	0.096	300	12.928	4	<0.05*	300	8.295	8	0.405
D	Have you ever been given a medication other than the one prescribed by your doctor?	328	2.175	6	0.903	300	5.565	2	0.062	300	6.719	4	0.152	300	2.623	2	0.269	300	22.334	4	<0.001***

Note. x^2 – Chi-square; df – degrees of freedom; p-value – Statistical signification at: $p < 0.05$*, $p < 0.01$**, $p < 0.001$***.

The results show a statistically significant relationship in Part A, where checking the quantity of medication brought by the patient is done significantly more often in district hospitals than in regional hospitals. In part A, we observe that the checking of the medication brought by the patient, including their quantity, is performed to a significantly greater extent by nurses in surgical departments and to a significantly lesser extent by nurses in aftercare and rehabilitation departments. In this context, it was also identified that noting medications and informing the patient not to take personal or unapproved medications was significantly higher by nurses in surgical departments and to a significantly lower extent in internal medicine and aftercare and rehabilitation departments.

Part B highlighted that the color of the medication administered by the nurse at each administration was significantly more likely to be checked by patients in district hospitals and, to a significantly lesser extent, by patients in regional hospitals. In this area, it was also statistically demonstrated that in the absence of the patient, the medication is left on the table at a significantly higher rate by nurses from regional hospitals and at a significantly lower rate by nurses from district hospitals. In contrast, the patient's identification bracelet is checked before administering the medication to a significantly greater extent by nurses from district hospitals than by nurses from regional hospitals. Part B shows that checking the names, numbers, and shapes of medication administered is done to a significantly greater extent by patients admitted to surgical departments and a significantly lesser extent by patients admitted to internal medicine and aftercare and rehabilitation departments. A statistically significant association was also identified in this area, with patients admitted to surgical departments being significantly more likely to ask about the names of medications than patients admitted to internal medicine departments. Patients admitted to surgical departments were also significantly more likely to ask the reason for a new medication than patients admitted to internal medicine and aftercare and rehabilitation departments. Surgical department patients are significantly more likely to report that nurses clearly answer questions about medication for patients admitted to internal medicine departments. In addition, surgical department patients are significantly more likely to report that the nurse waits for the patient to swallow the medication. Patients in internal medicine departments are significantly more likely to report that the nurse does not wait or waits very rarely. Nurses from surgical departments are significantly more likely to verify the patient's name before administering medication, and nurses from internal medicine and aftercare and rehabilitation departments are significantly less likely to do so. Nurses from surgical departments are significantly more likely to check the patient's ID bracelet before administering medication, and nurses from the internal medicine and aftercare and rehabilitation departments are significantly less likely to do so. Furthermore, a statistically significant association was identified between the situation when a nurse communicates with another person while administering medication and the type of department. Patients from surgical departments were significantly more likely to report that the nurse never or rarely behaves this way. Patients in surgical departments are significantly more likely to report that the nurse attends exclusively to the patient when administering medication. In contrast, patients in internal medicine departments are significantly more likely to report that the nurse behaves in this way less frequently.

In Part C, a statistically significant association was identified between hospital type and patient willingness to be involved in decisions about which medication to take. Patients from district hospitals were significantly less willing to be involved in this decision. In contrast, patients from regional hospitals want their family members to be involved in decisions about medication use to a significantly greater extent.

A statistically significant association was identified in Part D between patients' views of nurse misconduct in administering a non-prescribed medication and department type. Patients in surgical departments were significantly more likely to report that such an error had never occurred, whereas patients in internal medicine departments were significantly more likely to report uncertainty.

DISCUSSION

This study aimed to evaluate patients' subjective perceptions of medication administration in the hospital setting, including their involvement in the process associated with medication administration. This study indicated that in district hospitals, there is a statistically significantly higher rate of the medication brought in by the patient being checked. Checking the medication prescribed before a patient is admitted to the hospital can have a major impact on patient safety. Inaccurate medication history prior to admission to the hospital can cause significant harm to patients, reducing their safety in the hospital environment. Thus, the nurse can significantly impact the elimination of medication errors [13]. Our study found that nurses were significantly more likely to check the patient's ID bracelet before administering medication in district hospitals. Compared to a previous investigation in 2021, the results show that nurses are more aware of some medication errors due to interactive workshops. By verifying patient identity and the appropriateness of the medication, healthcare providers can reduce the risk of administering the wrong medication or dosage. This is especially important in high-stress environments. A study by Salami et al. [14] identified several factors that influence the importance of checking patients before administering medications. These factors include the nurse's perception of potential harm, the type of medication administered, the nurse's knowledge of the medication or patient, and the patient's age. It has been found that all of these factors can affect how carefully nurses check patients' ID bracelets before administering medications. In their paper, Nitro et al. [15] and Härkänen et al. [16] describe the use of an ID bracelet as one of the most important strategies for establishing patient identification. Nitro et al. [15] further point out that this process is rarely used in practice and usually only when specific procedures are performed.

In addition, Luokkamäki et al. [17] add that nurses should also check the patient's allergy, appropriateness of the medication, time, form, and technique before administering the medication, even if the nurses already know the patient. By following these guidelines, nurses can ensure that medications are given to the right patient, at the right dose, in the right way, at the right time, and for the right reason [18]. According to the results of the questionnaire surveys, in comparison with a survey conducted in 2021, it can be concluded that from the patient's perspective, there has been a significant improvement in nurses' behavior during the medication administration process. Nurses pay more attention to patient identification, wait for the patient to swallow the medication, do not put the medication on the patient's table, and realize that concentration during administration is very important to make the entire process safe. One of the possible strategies to address the high incidence of medication errors is to encourage patient participation. This study found that patients in district hospitals are significantly less willing to participate in the medication administration process. On the contrary, they would like their family members to be significantly more involved in the process. Patient involvement is particularly important, but nurses do not involve them in medication administration activities because of time constraints [19]. However, there is little evidence that patient involvement affects the incidence of medication errors during hospitalization. Research results show that patients in surgical departments are significantly more likely to report that no medication errors ever occurred, whereas patients in internal medicine departments are more likely to report uncertainty. A study by McLeod et al. [20] suggests that some nurse-patient interactions may contribute to improved safety. Specifically, three different forms of interactions with patients have been identified as a defense against medication errors. First, patients have been observed to function as an active source of information and voluntarily share information about their medication without prompting. Second, patients functioned as a passive source of information and provided information about their medication when asked or prompted. Third, patients were observed as „double-checkers" who wanted to check on their prepared or administered medication [20].

CONCLUSIONS

Medication safety is a global priority in the context of patient protection and potential harm. Therefore, patient involvement in the medication administration process plays a significant role in patient safety and subsequent improvement of the quality of care provided in healthcare facilities. Research results highlight critical areas of patient involvement in the medication process to reduce the prevalence of medication errors.

Funding source

Supported by the Ministry of Health of the Czech Republic with reg. No. NU20-09-00257. All rights under intellectual property protection regulations are reserved.

ORCID

Martin Červený https://orcid.org/0000-0001-5612-158X

REFERENCES

1. WHO – World Health Organization, 2019. WHO calls for urgent action to reduce patient harm in healthcare. [online] [cit. 2023-12-07]. Available via: https://www.who.int/news/item/13-09-2019-who-calls-for-urgent-action-to-reduce-patient-harm-in-healthcare.
2. Heczková J. Role sester při zajišťování kvalitní a bezpečné farmakoterapie. Praktický lékař. 2021; 101, Supl. 1(2):12-16. ISSN: 0032-6739; 1805-4544.
3. Ciapponi A, et al. Reducing medication errors for adults in hospital settings. Cochrane Database Syst. Rev. 2021;11(11):CD009985. doi: 10.1002/14651858.CD009985.pub2.
4. Dhawan I, et al. Medication errors in anesthesia: unacceptable or unavoidable? Braz J Anesthesiol. 2017; 67(2): 184-192. doi: 10.1016/j.bjane.2015.09.006. Epub 2016 May 16.
5. Santos PRA, Rocha FLR, Sampaio CSJC. Actions for safety in the prescription, use and administration of medications in emergency care units. Rev. Gaúcha Enferm. 2019; 40. doi: https://doi.org/10.1590/1983-1447.2019.20180347.
6. Brabcová I, Prokešová R, Tóthová V, et al. Využití metody FMEA v řízení rizik ve zdravotnictví. Onkologie. 2021; 15(4): 197-203. ISSN: 1802-4475; 1803-5345.
7. Lawton R, O'Hara JK, Sheard L, et al. Can patient involvement improve patient safety? A cluster randomised control trial of the Patient Reporting and Action for a Safe Environment (PRASE) intervention. BMJ Qual. Saf. 2017; 26(8): 622-631. doi: 10.1136/bmjqs-2016-005570. Epub 2017 Feb 3.
8. O'Hara JK, Lawton RJ, Armitage G, et al. The patient reporting and action for a safe environment (PRASE) intervention: a feasibility study. BMC Health Serv. Res. 2016; 16(1): 676. doi: 10.1186/s12913-016-1919-z.
9. Veverková E, et al. Ošetřovatelské postupy pro zdravotnické záchranáře I. Praha: Grada Publishing; 2019, p. 228. ISBN 978-80-271-2418-3.
10. Sharma AE, et al. Patient Engagement In Health Care Safety: An Overview Of Mixed-Quality Evidence. Health Aff (Millwood). 2018; PMID: 30395509, DOI: 10.1377/hlthaff.2018.0716.
11. von Elm E, Altman DG, Egger M, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Journal of Clinical Epidemiology. 2008; 61(4): 344-349. https://doi.org/10.1016/j.jclinepi.2007.11.008
12. Hajduchová H, et al. Safety of drug administration from the perspective of hospitalized patients in selected hospitals of the South Bohemia Region. Ceska Slov. Farm. 2022; PMID: 36443023.
13. Breuker C, Macioce V, Mura T, et al. Medication Errors at Hospital Admission and Discharge: Risk Factors and Impact of Medication Reconciliation Process to Improve Healthcare. Journal of Patient Safety. 2021; 17(7): e645-e652. https://doi.org/10.1097/PTS.0000000000000420
14. Salami I. Nursing students medication errors and adherence to medication best-practice. Open Journal of Nursing. 2018; 08(05): 281-291. https://doi.org/10.4236/ojn.2018.85024
15. Nitro, et al. The safety of care focused on patient identity: an observational study. Acta Biomed. 2021; 92(S2): e2021038. doi: 10.23750/abm.v92iS2.11328.
16. Härkänen M, Tiainen M, Haatainen K. Wrong-patient incidents during medication administrations. J. Clin. Nurs. 2018; 27(3,4): 715-724.
17. Luokkamäki S, Härkänen M, Saano S, et al. Registered Nurses' medication administration skills: a systematic review. Scandinavian Journal of Caring Sciences. 2021; 35(1): 37-54. https://doi.org/10.1111/scs.12835.
18. Asefa KK, Dagne D, Negash W. Medication administration error reporting and associated factors among nurses working in public hospitals, ethiopia: a cross-sectional study. Nursing Research and Practice. 2021; 1: 1384168. https://doi.org/10.1155/2021/1384168
19. Bucknall T, Fossum M, Hutchinson AM, et al. Nurses' decision-making, practices and perceptions of patient involvement in medication administration in an acute hospital setting. Journal of Advanced Nursing. 2019; 75(6): 1316-1327. https://doi.org/10.1111/jan.13963
20. McLeod M, Barber N, Franklin BD. Facilitators and Barriers to Safe Medication Administration to Hospital Inpatients: A Mixed Methods Study of Nurses' Medication Administration Processes and Systems (the MAPS Study). PloS one. 2015; 10(6): e0128958. https://doi.org/10.1371/journal.pone.0128958.

Manuscript received: 07.07.2024
Manuscript accepted: 26.11.2024