
Assessment of Educational Needs of Nursing Students for Improving Patient Safety

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Abstract

Introduction: The education of students related to patient safety is a predictor of the development of a safety culture and thereby increases patient safety in healthcare institutions. A growing emphasis is placed on the development of courses and topics that would enable comprehensive and structured patient safety-related education. In 2011, WHO published the *Multi-professional Patient Safety Curriculum Guide*, consisting of 11 main topics.

Methods: The research was conducted using a questionnaire containing 13 questions, completed by the all second-year students who previously attended the elective course *Patient Safety in Healthcare Institutions* and a control group of all third-year students that did not attend the course. The SPSS program (16.0, SPSS Inc., Chicago, IL, USA) was used for processing and analysing the data. The research was conducted at the University of Applied Health Sciences in Zagreb, Croatia.

Results: The study included 170 students of the second and third years of the nursing study program. The conducted research showed a statistical difference in the responses between students of the second and third years, considering their previous education on patient safety. 90.36% of the second-year students stated that they applied safe practices to prevent drug-administration related incidents, while 70.73% of the third-year students reported the same. The difference in the responses is associated with prior education.

Conclusion: Regardless of the year of the study, students showed a great interest in the education and learning of practical skills in patient safety.

Introduction

There are many definitions of *patient safety*, but they all have the same purpose in mind - to prevent adverse events and improve the safety of the patient. Some of the most common definitions are:

Patient safety is the absence of preventable harm to a patient during the process of healthcare (1). Patient safety defines as making care continually safer by reducing harm and preventable mortality (2).

The incidence of adverse events in the healthcare system is estimated at 43 million during one year, which means that 1 in 10 patients experiences some sort of adverse event during their hospitalization (1). The Canadian Adverse Event Study also reported that 7.5% of patients hospitalized in Canada were harmed by failure of healthcare delivery (3). Research conducted by Jha et al. showed that the most common type of adverse event in high-income countries were adverse drug events, while the most common in low-income and middle-income countries were venous thromboembolisms (4).

To prevent errors, adverse events and near misses in healthcare, it was suggested that patient safety education for health professionals requires an improvement (Greiner and Knebel, 2003, qtd. in 5).

The discipline of patient safety includes the coordinated efforts to prevent harm, caused by the process of healthcare itself, from occurring to patients. Patient safety has been increasingly recognized as an issue of global importance (6). Building safer healthcare is a global concern that depends on the quality of nursing education (7).

In May 2002, the 55th World Health Assembly adopted resolution WHA55.18, which urged countries to pay the greatest possible attention to patient safety and requested the Director General of WHO to "support the efforts of Member States to promote a culture of safety", including:

- Development of global norms and standards;
- Promotion of evidenced-based policies;
- Promotion of mechanisms to recognize excellence in patient safety internationally;
- Encouragement of research;
- Provision of assistance to countries in several key areas (1).

Patient safety is being recognized as an indicator of the quality of care and thus is progressively integrated into the education of healthcare professionals. Raising awareness about the possibility of adverse events in the provision of healthcare and the role of healthcare professionals in its development is extremely important. Numerous relevant sources state that raising awareness is one of the main predictors of improving patient safety, and can be done without investing significant material resources. Patient safety education is important in early years when students are establishing the foundations for their clinical practice (8).

Patient safety education should seek to envelop the most common critical moments for the occurrence adverse events, such as washing hands, invasive procedures, drug administration and many others.

The important segment of this education is learning from adverse events that have already occurred in the past, where students are exposed to as many adverse events as possible, with the objective to analyse what caused them and to develop as many interventions as possible that could prevent the incident.

In 2011, WHO published a document titled Multi-professional Patient Safety Curriculum Guide comprised of 11 major areas (9). It is a guide for all countries, cultures and contexts (10). Also, the 'National Patient Safety Education Framework for Australia' consists of seven areas and topics: communicating effectively; identifying, preventing and managing adverse events and near misses; using evidence and information, working safely, being ethical; continuing learning and specific issues (11).

The aim of this initiative (Curriculum Guide) was to assist universities and schools in several healthcare fields, including nursing, to deliver consistent and structured patient safety education in order to improve patient care (9).

Nursing students showed a great interest in the education on patient safety, which therefore makes a systematic and structured approach to this education an important objective. Education about patient safety motivates students to choose behaviours that enhance rather than reduce patient safety (12-17).

Educating students, and simultaneously raising awareness about the possibility of an adverse event, increases the quality of provided care, while the education on the importance of following specific guide-

lines and protocols during certain procedures reduces the occurrence of adverse events to a minimum.

The aims of this research were to:

1. determine the level of acquired knowledge related to patient safety through the courses of the undergraduate nursing study program,
2. determine students' satisfaction with the availability of the information related to patient safety,
3. determine students' interest in certain topics from the education on patient safety.

The aim of this research was to select the best way of educating students on patient safety in the healthcare environment through objective indicators. Results of this research will enable the improvement of the organization and content of the elective course Patient Safety in Healthcare Institutions by additionally including areas of major interest for the students.

Methods

The research was conducted in the summer semester of the academic year 2016/2017 at the University of Applied Health Sciences in Zagreb, Croatia.

Research description

After being fully informed about the research, students were asked to fill in a questionnaire.

Materials and methods

The study included 170 students of the second and third years of the nursing study program, and three respondents who did not answer the socio-demographic questions. The respondents were full-time students. All of the second-year students attended the elective course Patient Safety in Healthcare Institutions, and none of the third-year students attended the elective course Patient Safety in Healthcare Institutions.

The students were asked to fill in an anonymous questionnaire. The questionnaire was modified and it was similar to the questionnaire made by the authors Van Geest, JB and Cummins DS published in 2002 (18).

The questionnaire contained 13 questions. The first 10 questions were related to education about patient safety, and were also related to the level of student interest in special topics related to patient safety. The last three questions were related to age, gender and year of the study. Most of the questions offered "Agree", "Disagree" and "Not sure" as possible answers. For the rest of the questionnaire, "Very interested", "Somewhat interested" and "Not at all interested" were possible answers. The second, third and eighth questions offered the option of multiple sub-questions, the second question offered nine sub-questions, the third offered six sub-questions and the eighth offered 21 sub-questions.

Ethics

The proposed research was conducted in accordance with ethical principles for research on humans based on the principles of the Helsinki Declaration and in accordance with all applicable guidelines of the code of ethics of the profession. The Ethics Committee of the University confirmed and gave approval for conducting the research.

Data processing methods

The SPSS program (16.0, SPSS Inc., Chicago, IL, USA) was used for processing and analysing the data. The results are shown as the arithmetic mean (M) and standard deviation (SD) as a measure of descriptive statistics, calculating the average values for item representation of each procedure. The significance of the test was set at 5% (level of significance of 5% is equal to 95% reliability).

Results

The study included 167 students of the second and third years of the nursing study program while 3 of the respondents did not answer all of the questions. Data on the age of the respondents showed that the arithmetic mean was 21.74 with standard deviation of 2.192, with the minimum value of 18 years old and the maximum value of 40 years old.

Table 1. Age of the respondents

Number	Valid 167 Missing 3
Arithmetic mean	21.74
Standard deviation	2.192
Minimum	18
Maximum	40

Table 2. Gender of the respondents

	Number	Percentage	
Gender of the respondents	Female	143	85.6
	Male	24	14.4
	Total	167	100.00

Data on the gender of the respondents showed that 85.6% were female, while 14.4% were male.

Table 3. Year of study

	Number	Percentage	
Year of study	Partial 2 nd year	2	1.20
	2	83	49.70
	3	82	49.10
	Total	167	100.00

Data on year of the study showed that 49.70% of the respondents were in the second year of the nursing study program, while 49.10% of the respondents are currently enrolled in the third year of the nursing study program.

Given that Fischer’s exact test showed a significance of 0.012, which is less than 0.05, we can say that in the respondents’ answers to the question *Despite the findings, there is disagreement on the extent to which errors occur in healthcare every day. Please rate the importance of patient safety as an issue in healthcare today* there is a statistically significant difference in observed frequency of the response related to the year of study. Second-year students give greater importance to patient safety.

Table 5 contains descriptive indicators for respondents of the second and third year of the nursing study program regarding the perception of patient safety. Frequencies and percentages are stated for each question. Questions which recorded the smallest and largest value of the arithmetic mean in regard to the year of study are reviewed.

The highest percentage for the respondents on the second year of the nursing study program is 92.8% and it is recorded for the question: *There is a relationship between patient safety and quality of care.*

The lowest value of percentage for the respondents on the second year of the nursing study program is

Table 4. Results of the question regarding the year of study: Despite the findings, there is disagreement on the extent to which errors occur in healthcare every day. Please rate the importance of patient safety as an issue in healthcare today.

Despite the findings, there is disagreement on the extent to which errors occur in healthcare every day. Please rate the importance of patient safety as an issue in healthcare today.			Very important	Important	Somewhat important	Total
Year of study	2	Number	60	20	0	80
		% within a year of study	75.0	25.0	0.0	100.0
	3	Number	47	34	1	82
		% within a year of study	57.3	41.5	1.2	100.0
	Total	Number	107	54	1	162
		% within a year of study	66.7	32.7	0.6	100.0

Table 5. Perception of patient safety

		Year of study			
		2		3	
		Number	Percentage	Number	Percentage
Safety is better addressed at the system level than at the level of the individual.	Agree	28	33.7	28	34.1
	Disagree	27	32.5	20	24.4
	Not sure	28	33.7	34	41.5
	Total	83	100.0	82	100.0
Safer environment for patients is also a safer environment for workers.	Agree	75	90.4	61	74.4
	Disagree	6	7.2	13	15.9
	Not sure	2	2.4	8	9.8
	Total	83	100.0	82	100.0
Everyone in healthcare shares a collective responsibility for errors.	Agree	41	49.4	46	56.1
	Disagree	34	41.0	26	31.7
	Not sure	8	9.6%	10	12.2
	Total	83	100.0	82	100.0
Multidisciplinary partnerships are essential for preventing errors in healthcare.	Agree	75	90.4	76	92.7
	Disagree	1	1.2	1	1.2
	Not sure	7	8.4%	5	6.1
	Total	83	100.0	82	100.0
There is a relationship between patient safety and quality of care.	Agree	77	92.8	75	91.5
	Disagree	3	3.6%	3	3.7
	Not sure	3	3.6%	4	4.9
	Total	83	100.0	82	100.0
Patient safety has become a major area for improvement in my institution.	Agree	76	91.6	59	72.0
	Disagree	1	1.2	5	6.1
	Not sure	6	7.2	18	22.0
	Total	83	100.0	82	100.0
I know the proper channels to report safety concerns.	Agree	44	53.0	32	39.0
	Disagree	7	8.4%	16	19.5
	Not sure	32	38.6	34	41.5
	Total	83	100.0	82	100.0
Errors represent a significant ethical challenge to healthcare.	Agree	68	81.9	52	63.4
	Disagree	3	3.6	13	15.9
	Not sure	12	14.5	17	20.7
	Total	83	100.0	82	100.0

33.7% and it is recorded for questions: *Safety is better addressed at the system level than at the level of the individual* and: *Everyone in healthcare shares a collective responsibility for errors.*

The highest value of percentage for the respondents of the third year of the nursing study program is 92.7% and it is recorded for the question: *Multi-disciplinary partnerships are essential for preventing errors in healthcare.*

The lowest value of the percentage for the respondents of the third year of the nursing study program is

34.1% and it is recorded for questions: *Safety is better addressed at the system level than at the level of the individual* and: *I know the proper channels to report safety concerns.*

Table 6 contains descriptive indicators for respondents of the second and third year of the nursing study program regarding the perception of acquired knowledge related to patient safety. Data for each question is displayed in frequencies and percentages.

The highest value of percentage for the respondents on the second year of the nursing study program is

Table 6. Perception of acquired knowledge related to patient safety

		Year of study			
		2		3	
		Number	Percentage	Number	Percentage
Attended training programs or conferences on patient safety?	Yes	60	72.29	19	23.17
	No	23	27.71	61	74.39
	Not Applicable	0	.00	2	2.44
	Total	83	100.00	82	100.00
Implemented or worked with a non-punitive system for reporting and analysing healthcare errors?	Yes	77	92.77	35	42.68
	No	6	7.23	44	53.66
	Not Applicable	0	.00	3	3.66
	Total	83	100.00	82	100.00
Read reports on patient safety?	Yes	54	65.06	31	37.80
	No	29	34.94	49	59.76
	Not Applicable	0	.00	2	2.44
	Total	83	100.00	82	100.00
Employed practices to identify and reduce medication errors?	Yes	75	90.36	58	70.73
	No	6	7.23	18	21.95
	Not Applicable	2	2.41	6	7.32
	Total	83	100.00	82	100.00
Discussed patient safety concerns with colleagues and/or supervisors?	No response	1	1.20	0	.00
	Yes	77	92.77	70	85.37
	No	4	4.82	12	14.63
	Not Applicable	1	1.20	0	.00
Total	83	100.00	82	100.00	
Identified errors in patient care?	No response	0	.00	2	2.44
	Yes	63	75.90	63	76.83
	No	17	20.48	15	18.29
	Not Applicable	3	3.61	2	2.44
Total	83	100.00	82	100.00	

Table 7. Results of the question regarding the year of study: Do you have an interest in education, training and skill development in patient safety?

			Do you have an interest in education, training and skill development in patient safety?			Total
			Much interest	Interest	No interest	
Year of study	2	Number	18	64	1	83
		% within a year of study	21.7%	77.1%	1.2%	100.0%
	3	Number	20	55	7	82
		% within a year of study	24.4%	67.1%	8.5%	100.0%
Total	Number	38	119	8	165	
	% within a year of study	23.0%	72.1%	4.8%	100.0%	

92.77% and it is recorded for questions: *Implemented or worked with a non-punitive system for reporting and analysing healthcare error?* and *Discussed patient safety concerns with colleagues and/or supervisors?*

The lowest value of percentage for the respondents on the second year of the nursing study program is 65.06% and it is recorded for the question: *Read reports on patient safety?*

The highest value of percentage for the respondents of the third year of the nursing study program is 76.83% and it is recorded for the question: *Identified errors in patient care?*

The lowest value of percentage for the respondents of the third year of the nursing study program is 23.17% and it is record for question: *Attended training programs or conferences on patient safety?*

Table 8. Results to the question regarding the year of study: Is the education about patient safety and skill development available to you?

			Is the education about patient safety and skill development available to you?					Total
			No response	Very available	Available	Somewhat available	Not at all available	
Year of study	2	Number	0	5	61	17	0	83
		% within a year of study	0.0%	6.0%	73.5%	20.5%	0.0%	100.0%
	3	Number	1	2	27	50	2	82
		% within a year of study	1.2%	2.4%	32.9%	61.0%	2.4%	100.0%
Total	Number	1	7	88	67	2	165	
	% within a year of study	0.6%	4.2%	53.3%	40.6%	1.2%	100.0%	

Fischer’s exact test showed a significance of 0.071, which is higher than 0.05. Therefore, we can say that in the respondents’ answers to the question *Do you have an interest in education, training and skill development in patient safety?* there is no statistically significant difference in observed frequencies of the response related to the year of study.

Fischer’s exact test showed a significance of 0.000, which is less than 0.05. Therefore, we can say that in the respondents’ answers to the question *Is the education about patient safety and skill development*

available to you? there is a statistically significant difference in observed frequencies of the response related to the year of study. Second-year students report that education is more available to them.

Table 9 contains descriptive indicators for the group of questions which are related to a topic of interest. Data for each question is displayed in frequencies, percentages, arithmetic mean and standard deviation. Questions which recorded the smallest and the largest value of the arithmetic mean of answers are reviewed.

Table 9. Please indicate your level of interest in learning more about the following topics

		Number	Percentage	\bar{x}	sd
Theories of human error	Very interested	44	25.88		
	Interested	109	64.12		
	Not at all interested	17	10.00		
	Total	170	100.00	1.84	.58
Models for error identification	Very interested	60	35.29		
	Interested	99	58.24		
	Not at all interested	11	6.47		
	Total	170	100.00	1.71	.58
Model for error reduction	Very interested	78	45.88		
	Interested	82	48.24		
	Not at all interested	10	5.88		
	Total	170	100.00	1.60	.60
Information-based strategies to improve patient safety	No response	1	.59		
	Very interested	69	40.59		
	Interested	87	51.18		
	Not at all interested	13	7.65		
	Total	170	100.00	1.66	.63
Models for constructively dealing with unsafe practices	Very interested	51	30.00		
	Interested	100	58.82		
	Not at all interested	19	11.18		
	Total	170	100.00	1.81	.62
Safety practices, standardization	Very interested	71	41.76		
	Interested	83	48.82		
	Not at all interested	16	9.41		
	Total	170	100.00	1.68	.64
System for reporting errors	Very interested	75	44.12		
	Interested	83	48.82		
	Not at all interested	12	7.06		
	Total	170	100.00	1.63	.61

Table 9. Please indicate your level of interest in learning more about the following topics

		Number	Percentage	\bar{x}	sd
Patient safety in hospital-based settings	Very interested	81	47.65	1.58	.59
	Interested	80	47.06		
	Not at all interested	9	5.29		
	Total	170	100.00		
Patient safety in out-of-hospital settings	Very interested	37	21.76	1.92	.60
	Interested	109	64.12		
	Not at all interested	24	14.12		
	Total	170	100.00		
Proven medication safety practices	No response	1	.59	1.52	.65
	Very interested	92	54.12		
	Interested	64	37.65		
	Not at all interested	13	7.65		
	Total	170	100.00		
Establishing and promoting interdisciplinary teams to address patient safety	No response	14	8.24	1.69	.78
	Very interested	44	25.88		
	Interested	93	54.71		
	Not at all interested	19	11.18		
	Total	170	100.00		
"Culture of safety"	No response	5	2.94	1.88	.74
	Very interested	43	25.29		
	Interested	90	52.94		
	Not at all interested	32	18.82		
	Total	170	100.00		
Methods for making safety a system-wide objective (work hours, workloads, staffing...)	No response	15	8.82	1.39	.72
	Very interested	82	48.24		
	Interested	64	37.65		
	Not at all interested	9	5.29		
	Total	170	100.00		
Patient perception of error	No response	7	4.12	1.61	.72
	Very interested	70	41.18		
	Interested	76	44.71		
	Not at all interested	17	10.00		
	Total	170	100.00		
Legal issues	No response	5	2.94	1.89	.79
	Very interested	48	28.24		
	Interested	78	45.88		
	Not at all interested	39	22.94		
	Total	170	100.00		

Table 9. Please indicate your level of interest in learning more about the following topics

		Number	Percentage	\bar{x}	sd
Ethical issues	No response	3	1.76		
	Very interested	54	31.76		
	Interested	84	49.41		
	Not at all interested	29	17.06		
	Total	170	100.00	1.82	.73
Interpersonal communication strategies	No response	3	1.76		
	Very interested	52	30.59		
	Interested	85	50.00		
	Not at all interested	30	17.65		
	Total	170	100.00	1.84	.73
Methods of reporting errors to patient, family, media	No response	3	1.76		
	Very interested	62	36.47		
	Interested	85	50.00		
	Not at all interested	20	11.76		
	Total	170	100.00	1.72	.69
Other	No response	35	20.59		
	Very interested	23	13.53		
	Interested	62	36.47		
	Not at all interested	50	29.41		
	Total	170	100.00	1.75	1.09

The highest value of arithmetic means is 1.92 and it is reported for the question: *Patient safety in out-of-hospital settings* with standard deviation of 0.60, and for question: *Legal issues* with arithmetic mean of 1.89 and standard deviation of 0.79.

The lowest value of arithmetic means is 1.39 and it is reported for questions: *Methods for making safety a*

system-wide objective (work hours, workloads, staffing...) with the standard deviation of 0.72, and question *Proven medication safety practices* with arithmetic mean of 1.52 and standard deviation of 0.65.

If we look at the value of significance for the perception of patient safety, we can see that the significance of the t-test is less than 5%, that is, $p = 0.001$.

Table 10. t-test - Testing differences in responses related to the year of study

		Levene's test for equality of variances		t-test		
		F	Sig.	t	df	p
Perception of patient safety	The equality of variances is assumed	1.062	.304	-3.481	163	.001
	The equality of variances is not assumed			-3.479	160.625	.001
Level of interest in learning more about the following topics	The equality of variances is assumed	.575	.449	-8.046	160	.000
	The equality of variances is not assumed			-8.041	159.046	.000

Therefore, we can say with a 95% confidence level that there is a statistically significant difference in the perception of safety responses related to the year of study.

If we look at the level of interest in learning more about the following topics, we can see that the significance of the t-test is less than 5%, that is, $p = 0.000$. Therefore, we can say with a 95% confidence level that there is a statistically significant difference in the responses for topical motivation with respect to the year of study.

Discussion

The research points to some differences in the results between the second and third-year students of nursing. In the first question, which relates to raising awareness about the safety of patients, differences in responses between second-year and third-year students have been statistically proven. Students who have had formal education regarding the safety of patients in a health institution in an elective course showed greater sensitivity to the problem of patient safety in health institutions. One of the aims of implementing education on patient safety is developing awareness of the possibility of adverse events and the role of healthcare professionals in causing them. A study conducted in 2015 revealed that students' understanding, attitudes and sense of responsibility regarding patient safety improved after education (19).

When asked *Where they most frequently seek information on patient safety*, students usually responded that they obtain information from professors and mentors during practical training. If the students stated that they were not satisfied with the availability of formal education on patient safety and having to explain the reason, they usually mentioned the absence of formal courses (third-year students) and short duration of courses on the safety of patients in a health institution (second-year students).

Fisher's exact test showed a statistical significance of 0.071, which is higher than 0.05, therefore we can conclude that there is no statistically significant dif-

ference in the responses of respondents based on the year of study for the question *Do you have an interest in education, training and skill development in patient safety?*

A research conducted in 2012 in teaching hospitals in Iran also showed that 80% of the respondents wanted to attend education related to patient safety (20). Many authors state the importance of the implementation of continuous education on patient safety in the education of healthcare professionals (21).

From 18 topical units, students had to rank the level of interest in a particular topic. Among three interest levels, students had to choose between: very interested, interested and not interested. The results were as follows: 54.12% stated that the area of greatest interest was *Proven medication safety practices*; 48.24% stated *Methods for making safety a system-wide objective (work hours, workloads, staffing...)*, and 47.65% of them stated that *Patient safety in hospital-based settings* was of most interest. The minimum percentage of interest was expressed for *Patient safety in out-of-hospital settings* (21.76%); 25.29% of students stated *Culture of safety* and 25.88% stated *Establishing and promoting interdisciplinary teams to address patient safety*.

A 2002 survey by the National Patient Safety Foundation indicated that the areas of greatest student interest were *Proven medication safety practices* - 75.8%, *Methods for making safety a system-wide objective (work hours, workloads, staffing...)* - 75.7%, and *Ethical Issues* - 72.1% of students. As subject areas of least interest, the students identified *Models for error identification* - 46.7%, *Patient safety in out-of-hospital settings* - 43.3%, and the *Theories of human error* - 36.4% (18).

Conclusion

The research indicates that the nursing students show a significant interest in education about patient safety and the development of skills related to the detection and prevention of adverse events. Enabling students to obtain such a specific education through a separate course ensures that all relevant

and important topics on patient safety are systematically and thoughtfully presented. Differences in the results between nursing students of the second and third year of study related to the perception of patient safety are statistically significant, as well as the self-perception of knowledge related to the field. Second-year nursing students that have finished the education as part of the elective course Patient Safety in Healthcare Institutions show significantly better results for both perception of patient safety and perception of acquired knowledge related to patient safety tests.

References

1. WHO. Patient Safety. (23.03.2017.) Available from: <http://www.who.int/patientsafety/en/>.
2. Institute for Healthcare improvement. Patient Safety. (23.03.2017.) Available from: <http://www.ihl.org/Topics/PatientSafety/Pages/Overview.aspx>
3. Flemons DW, Wright D. Patient safety education. *Can J Respir Ther.* 2010; 46: 50-51.
4. Jha A, Larizgoitia I, Audera-Lopez C, Prasposa-Plaizier N, Waters H, Bates DW. The global burden of unsafe medical care: analytic modeling of observational studies. *BMJ QualSaf.* 2013; 22: 809-815. DOI:10.1136/bmjqs-2012-001748.
5. Mansour M. Current assessment of patient safety education. *Br J Nurs.* 2012; 21 (9): 536-543. DOI:10.12968/bjon.2012.21.9.536.
6. Vaismoradi M, Salsali M, Marck P. Patient safety: nursing student's perspectives and the role of nursing education to provide safe care. *Int Nurs Rev.* 2011; 58 (4): 434-442.
7. Tella S, Smith NJ, Partanen P, Turunen H. Learning Patient Safety in Academic Settings: A Comparative Study of Finnish and British Nursing Students Perception. *Worldviews Evid Based Nurs.* 2015; 12 (3): 154-164. DOI:10.1111/j.1466-7657.2011.00882.x.
8. Walton M, Woodward H, Van Staalduinen S, Lemer C, Greaves F, Noble D, et al. The WHO patient safety curriculum guide for medical schools. *Qual Saf Health Care.* 2010; 19: 542-546. DOI:10.1136/qshc.2009.036970
9. Mansour M. Examining patient safety education in pre-registration nursing curriculum: Qualitative study. *J Nurs Educ Pract.* 2013; 3 (12): 157-167. DOI: <https://doi.org/10.5430/jnep.v3n12p157>
10. WHO. Patient Safety Curriculum Guide. Multi-professional Edition. Switzerland. 2011.
11. Walton MM, Shaw T, Barnet S, Ross J. Developing a national patient safety education framework for Australia. *Qual Saf Health Care* 2006; 15: 437-442. doi: 10.1136/qshc.2006.019216
12. Fleming M. Patient Safety Culture Measurement and Improvement: A How To Guide. *Healthc Q.* 2005; 8: 14-19.
13. Flin R, Burns C, Mearns K, Yule S. Measuring safety climate in health care. *Qual Saf Health Care.* 2006; 15 (2): 109-115. DOI:10.1136/qshc.2005.014761.
14. Okuyama A, Marzowirono K, Bijnen B. Assessing the patient safety competencies of healthcare professionals: a systematic review. *BMJ Qual Saf.* 2011; 991-1000. doi: 10.1136/bmjqs-2011-000148
15. Sequeira RP. Patient safety in medical education: Medication safety perspectives. *Indian J Pharmacol.* 2015; 47 (2): 135-136. DOI: 10.4103/0253-7613.153417
16. Haxby EJ, Higton P, Jaggar S. Patient safety training and education: who, what and how? *Clinical Risk.* 2007; 13: 211-215.
17. Sokol P, Cummins DS. A Needs Assessment for Patient Safety Education: Focusing on the Nursing Perspective. *Nurs Econ.* 2002; 20 (5): 245-248. PubMed PMID: 12382546
18. Van Geest JB, Cummins DS. An Educational Needs Assessment for improving patient Safety. National Patient Safety Foundation. 2002.
19. Roh H, Park SJ, Taekjoong K. Patient safety education to change medical students attitudes and sense of responsibility. *Med Teach.* 2015; 37: 908-914.
20. Nabilou B, Feizi A, Seyedin H. Patient Safety in Medical Education: Students Perceptions, Knowledge and Attitudes. *Plos One.* 2015; 1-8.
21. Gabrani CJ, Knibb W, Petrela E, Hoxha A, Babrani A. Provider Perspectives on Safety in Primary Care in Albania. *J Nurs Scholarsh.* 2016; 48 (6): 552-560.

PROCJENA OBRAZOVNIH POTREBA STUDENATA STUDIJA SESTRINSTVA U SVRHU POVEĆANJA SIGURNOSTI PACIJENTA U ZDRAVSTVENOJ USTANOVI

SAŽETAK

Uvod. Edukacija studenata povezana sa sigurnošću pacijenata prediktor je razvijanja kulture sigurnosti te time i povećanja sigurnosti pacijenta u zdravstvenoj ustanovi. Sve se veći naglasak stavlja na organizaciju kolegija te tematska područja unutar kojih bi se omogućila cjelovita i strukturirana edukacija povezana sa sigurnošću pacijenata. WHO je stoga 2011. godine izdao kurikulum *Multi-professional Patient Safety Curriculum Guide* koji se sastoji od 11 glavnih tematskih područja.

Metode. Istraživanje je provedeno upotrebom upitnika koji se sastoji od trinaest pitanja. U istraživanje su uključene dvije skupine studenata, prva skupina studenata druge godine studija sestrinstva, gdje su svi pohađali izborni kolegij Sigurnost pacijenta u zdravstvenoj ustanovi, te kontrolna skupina studenata treće godine studija koja nije pohađala navedeni izborni kolegij. Dobiveni podaci sustavno su analizirani upotrebom programa SPSS (16.0, SPSS Inc., Chicago, IL, SAD). Istraživanje je provedeno na Zdravstvenom veleučilištu u Zagrebu.

Rezultati. U istraživanju je sudjelovalo 170 studenata druge i treće godine studija sestrinstva. Provedenim je istraživanjem statistički dokazana razlika u odgovorima studenata druge i treće godine s obzirom na prethodnu edukaciju povezanu sa sigurnošću pacijenata. Čak 90,36 % ispitanika druge godine studija navodi kako su primjenjivali sigurnu praksu kako bi spriječili krivu primjenu lijeka, dok 70,73 % ispitanika

treće godine studija navodi isti podatak. Razlika u odgovorima povezana je s prethodnom edukacijom.

Zaključak. Studenti bez obzira na godinu studija pokazuju veliki interes za edukaciju i učenje praktičnih vještina iz područja sigurnosti pacijenata.

Ključne riječi: edukacijske potrebe, sigurnost pacijenata, student, studij sestrinstva
