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COVER

Author of the picture:

Hanna Dujmović, academic painter, who completed her education at the Academy of Fine Arts in Sarajevo at the department of sculpture. World class exhibitions (USA, France, Italy, Portugal, Serbia, UK, Japan, Poland, Montenegro, Croatia

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Impresum

Poštovane kolegice i kolege,

Sa zadovoljstvom objavljujemo drugi broj Časopisa Komore medicinskih sestara-tehničara Kantona Sarajevo.
U ovom broju Časopisa objavljeni su naučni i stručni radovi koji promoviraju sestrinsku profesiju i sestrinske kompetencije koje stiču formalnim i neformalnim obrazovanjem.

Naš Časopis je most koji povezuje medicinske sestre-tehničare različitih nivoa obrazovanja, različitih stručnih područja sestrinske prakse, kako u zemlji, tako i u Regionu i Evropi. Cilj povezivanja je razmijena stručnih iskustava u praksi i standardizacija usluga zdravstvene njege.
Posebno smo ponosni, da smo u ovom broju objavili istraživačke radove studenata Fakulteta zdravstvenih studija.

Iskreno se nadamo, da će slijedeći broj Časopisa biti biti u naučnoj referalnoj bazi, te da će objavljeni radovi biti dostupni medicinskim sestrama istraživačima i drugim zdravstvenim radnicima u svrhu razvoja zdravstvenih nauka.

S poštovanjem,

Prof.dr Hadžan Konjo

Impressum

My Esteemed Colleagues,

It is with great pleasure that we publish the second issue of The Journal of Nurses-Technicians of Sarajevo Canton.
In this issue, scientific and professional articles have been published that promote the nursing profession and competences acquired through formal and informal education.

Our Journal is the bridge that connects nurses and technicians with different levels of education and different professional fields of nursing practice, both in our country and in the region and Europe. The aim of the link is the exchange of professional experiences in practice and the standardisation of healthcare services.
We are particularly proud to publish in this issue the research work of students from the Faculty of health studies.
We sincerely hope that the next issue of the Journal will be published in scientific referral base and that the published articles will be available to nursing researchers and other healthcare professionals for the purpose of healthcare studies advancement.

Respectfully,

Prof.dr. Hadžan Konjo

ADVANCEMENT OF NURSE COMPETENCIES IN ACCORDANCE WITH KNOWLEDGE AND SKILLS ACQUIRED THROUGH HIGHER EDUCATION

RAZVOJ KOMPETENCIJA MEDICINSKIH SESTARA U SKLADU SA ZNANJEM I VJEŠTINAMA STEČENIM KROZ VISOKO OBRAZOVANJE

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SAŽETAK

UVOD

*Prema Direktivi Evropske Unije – EU Direktive o regulisanim profesijama" BA 11 IB OT 03, jasno je data mapa puta svih sektora uključujući sestrinstvo kao regulisanu profesiju u okviru čega su obuhvaćena sva ostala profesionalna zanimanja kao što je fizioterapija, radiološke i laboratorijske tehnologije, sanitarno inženjerstvo i babice.**CILJEVI ISTRAŽIVANJA: 1.** Ispitati radni status (pozicija na radnom mjestu, vrednovanje skladno stečenim kvalifikacijama) kod medicinskih sestara-tehničara zaposlenih u zdravstvenim ustanovama u Federaciji Bosne i Hercegovine; 2. Utvrditi mišljenja i stavove o profesionalnim kompetencijama stečenim kroz školovanje na zdravstvenim fakultetima; 3. Ispitati mišljenja o mogućnostima proširenja profesionalnih kompetencija skladno stečenim znanjima kroz školovanje na zdravstvenim fakultetima; 4.Utvrditi mišljenja o percepciji saradnika prema mogućnostima proširenja profesionalnih kompetencija visokoobrazovanih medicinskih sestara/tehničara; 5. Ispitati značaj stečenih profesionalnih kompetencija za reformske procese u zdravstvenom sistemu; 6. Komparirati dobivene rezultate u odnosu na geografsko područje i radno mjesto ispitanika. **METODE ISTRAŽIVANJA:** Istraživanje je deskriptivno, presiječno i komparativno. Ispitanici su bili visokoobrazovane medicinske sestre tehničari koje su zaposlene u Javnim i privatnim zdravstvenim ustanovama u Federaciji BiH.**ZAKLJUČCI:** Pregled mišljenja ispitanika o znanju i vještinama koje su stekli tokom obrazovanja pokazuje da samo 3 ili 2,0% ispitanika smatraju da nisu stekli dovoljno znanja i vještina neophodnih za rad, 49 ili 32,7% smatraju da su djelimično stekli dovoljno znanja i vještina, dok 88 ili 58,7% u potpunosti.*

ABSTRACT

INTRODUCTION

*According to the European Union Directive – „EU Directive on regulated professions" BA 11 IB OT 03, interactive map of all sectors is clearly stated including nursing as regulated profession in the framework of which all other professional occupations as physiotherapy, radiological and laboratory technologies, sanitary engineering and midwifery are included. **RESEARCH OBJECTIVES:** 1) To examine employment status (position at the workplace, evaluation in accordance with the acquired skills) among nurses-technicians employed in healthcare institutions in Federation of Bosnia and Herzegovina; 2) To examine opinions and attitudes on professional competencies acquired through education at the healthcare faculties; 3) To examine opinions on the possibilities of increasing professional competencies in accordance to the knowledge acquired through education at the healthcare faculties; 4) To determine opinions on perception of associates toward the possibilities of increasing professional competencies of highly educated nurses/technicians; 5) To examine the significance of acquired professional competencies for reform process in healthcare system; 6) To compare acquired results in accordance with the geographical area and workplace of the examinee. **MAIN WORK HYPOTHESIS:** Through higher education nurses / technicians acquire new professional competencies requisite in new healthcare system. **RESEARCH METHODS:** The research is descriptive, cross-sectional and comparative. The respondents are highly educated nurses and technicians employed in public and private healthcare institutions in Federation of Bosnia and Herzegovina. **CONCLUSIONS:** The review of the respondents' opinions on knowledge and skills acquired through education shows that 3 or 2.0% of the respondents think that they have not acquired adequate knowledge and skills required for the job, 49 or 32.7% of respondents think that they partially acquired adequate knowledge and skills, while 88 or 58.7% of the respondents think that they have fully acquired knowledge and skills.*

INTRODUCTION

What has remained controversial in nursing is the question of the degree of professionalisation. When considering the elements that make up the profession one must focus on the condition of nursing. A profession is defined as the activity that has a monopoly over a complex body of knowledge and practical skills, for which the long-term education is required, and which is clearly recognizable as such in the society. The application of these knowledge and skills is essential for the functioning of the modern society. There are five elements of the profession and these are:

- degree of development of basic theories,
- degree of monopoly on professional expertise,
- recognition of the profession by public, levels of organizational structure of the profession
- development of professional ethics.

What is certainly important for nursing profession is the existence of Chamber and numerous professional associations. The Chamber of nurses and technicians was founded in accordance with the articles of Law on nursing and Law on healthcare. The Chamber of nurses is a regulatory body for nursing in Bosnia and Herzegovina and its entities. The chamber conducts the register of nurses, assigns, renews and takes away authorisations for autonomous work and conducts professional supervision over the nurses' work. The main objective of the chamber of nurses is the care for the patients and citizens through providing qualitative, responsible and ethical healthcare.
The latest and the most important in strengthening of nursing profession is the professional ethics.[1]
Given the current views on nursing, which undoubtedly include interprofessional disagreement about the content of nursing profession, its significance in the society and among the patients as well as status of nursing in general, it is necessary to increase the contribution in the effort to enrich the nursing and improve it by strongly promoting the merits both in theoretical and practical sense which have always accompanied nursing as humane profession, practice and occupation.
Nowadays due to the strong technological progress and development of numerous subspecialities in medicine, incidence of nurses' work has been significantly increased.

Competencies for nursing in the primary medical care

On the international plan there is an increasing emphasis on the development of strong work force of nurses in the primary medical care in order to respond the challenges of increasing chronic and complex disease. Nurses take the key place in providing primary medical care and have the potential to significantly contribute the improvement of healthcare status of population in Bosnia and Herzegovina.

Development of nursing competencies in public healthcare and primary medical care

Output competencies, knowledge and skills that nurse in charge of general healthcare will acquire after completing the study programme are listed below:

- The ability to independently provide the diagnosis of required medical care using current theoretical and clinical knowledge, and to plan, organise and provide healthcare of a nurse during treatment of the patient based on their knowledge and skills to improve professional practice.
- The ability to collaborate effectively with other participants in the healthcare sector, including participation in the practical training of healthcare professionals based on their knowledge and skills.
- The ability to educate individuals, families and groups as regards healthy lifestyles and self-care based on their knowledge and skills.
- The ability to independently take immediate actions in saving lives and implement measures in crisis situations and accidents.
- The ability to independently provide advice, instructions and support to people in need of care and their close ones.
- The ability to independently ensure the quality and evaluate the nurses’ care.
- The ability to engage in comprehensive professional communication and cooperation with the members of other professions in healthcare sector.
- The ability to analyse the quality of care to improve their own professional practice in nursing responsible for general care.[2]

PROFESSIONAL COMPETENCIES IN CLINICAL HEALTHCARE

From the nursing definition that the unique role of a nurse is to help an individual, sick or healthy one, in performing those activities that contribute to health or recovery (or a peaceful death), which the individual would perform independently if he had the necessary strength, will or knowledge, it follows that nursing requires a great employee motivation and seeks the most valuable virtues of a human being from a nurse. A nurse must be an emotionally mature and stable person to be able to understand and deal with human suffering, emergencies, health problems and ethical dilemmas. The problems of modern nursing are mostly manifested in inadequate education and the impossibility of advancement in the profession.
Conditionally speaking, the professional development that nurses have is gained through experience and their own enthusiasm through work, but through them nurses

cannot be realised as persons with experience in specialized healthcare institutions acquired in the education system. Healthcare in Federation of Bosnia and Herzegovina, as well as in all of Bosnia and Herzegovina, the future of nursing depend mostly on well-trained nurses who will join the nurses in the world, primarily Europe, through the education of their own personnel, by participating in the creation of healthcare policy and research in nursing.

Nursing profession as the integral part of multidisciplinary organisation of work in the contemporary healthcare system comprises number of areas of professional activities on different levels of healthcare:

- health improvement and promotion activities,
- disease prevention,
- health care for physically and mentally ill or disabled persons of all age categories,
- palliative care,
- a series of activities that at the first glance cannot be directly linked to the nursing profession, such as jobs in the field of management in the health care system,
- representing the interests of health care users (protection of patients' rights),
- promotion and implementation of environmental protection and improvement activities.

In that way, nursing increasingly represents a direct link between users of healthcare on the one hand, and the health and social care system on the other, which from the members of this profession requires the consistent applying the skills acquired through continuous study of the way the healthcare system functions, including the coordination between the defined healthcare levels, the optimization of services through the rational use of available patient data in evidence-based healthcare, the interprofessional cooperation and communication and, finally, active participation in the activities to improve the efficiency of the healthcare system.

REFORM OF HEALTHCARE SYSTEM AND ROLES OF NURSING AND ITS NEW COMPETENCIES

Nurses are the heroes of healthcare sector, often praised for their practical care of patients, but their potential impact on the reform of healthcare is rarely recognized. At the intersection of patient interaction with the medical administration, their unique position puts them in an ideal position to advocate for improvement.

Through their field experiences and direct interaction with patients, nurses can provide invaluable insight into the impact of health policies on the patient care. By serving on committees and working groups, they can share this insight to shape more patient-centered policies:

- Boards and committees: Healthcare boards and committees, whether on the level of a local hospital or in higher volume, often shape standards of patient management, operative policy and budgets. In such situations nurses can focus attention on the patient who can point out the areas in which the politics could accidentally jeopardize the patient care or comfort.
- Working groups: Working groups which are often established to solve specific problems or challenges, benefit enormously from the practical knowledge of nurses. For example, a working group aiming to reduce hospital-acquired infections would benefit from a nurse's perspective on patient hygiene practices, visitor policies, or equipment sterilization.
- Shaping the legislation: In addition to internal hospital policies, nurses on these platforms can have the impact on broader health-related legislation. Their first-hand experience can guide legislative bodies in understanding the practical implications of their decisions on the healthcare community.

Nurses who want to maximize their impact can align themselves with organisations dedicated to healthcare reform. The American Academy of Nurse Practitioners focuses on healthcare reform through its policy and advocacy. Similarly, the American Nurses Association (ANA) offers resources and platforms for nurses to engage in federal advocacy. These organizations, among others, provide a platform for nurses to consolidate their efforts and effect the changes on a larger scale.[3]

RESEARCH SUBJECT

According to the European Union Directive – „EU Directive on regulated professions” BA 11 IB OT 03, interactive map of all sectors is clearly stated including nursing as regulated profession in the framework of which all other professional occupations as physiotherapy, radiological and laboratory technologies, sanitary engineering and midwifery are included.

When it comes to the competencies of a nurse in a general sense, they are designated as a combination of skills, knowledge, attitudes, values, abilities, judgment, which enable the appropriate performance of nursing care. Also, competences mean knowledge, understanding and judgement, skills (cognitive, technical, psychomotor and communication skills), personal characteristics, attitudes and development of interpersonal relationships. Competencies are essentially the levels of implementation with the effective use of all those elements.

- Respondents are of the opinion that greater responsibilities in accordance with expanded competences in work would not contribute to the improvement of services in the health system and patient satisfaction.

RESEARCH PURPOSE AND OBJECTIVES

Research purpose is to demonstrate new professional competencies which nurses/technicians acquire through higher education and informal education.

RESEARCH OBJECTIVES

Name of healthcare institution	N	%
Clinical center of University in Sarajevo	73	48.7
PI Health center of Sarajevo Canton	14	9.3
PHI University clinical center Tuzla	11	7.3
Cantonal hospital Zenica	11	7.3
PI General hospital "prim. dr. Abdulah Nakas" Sarajevo	6	4
Health center Livno	5	3.3
CPI Gerontology center Sarajevo	5	3.3
Cantonal hospital Livno	4	2.7
PI Cantonal hospital "Dr Safet Mujić" Mostar	3	2
PI Institute for addiction disease Sarajevo Canton	3	2
PI Hospital Travnik	2	1.3
PI Health Center Travnik	2	1.3
Policlinics Agram	2	1.3
Croatian hospital dr fra Mato Nikolić Nova Bila	1	0.7
PI Health center Donji Vakuf	1	0.7
PI Institute for Institute the care of mentally disabled children	1	0.7
PHI Health center Živinice	1	0.7
CPI Home for social and health care KS	1	0.7
Policlinics BiH Medical laboratory	1	0.7
Private policlinics	1	0.7
Special hospital Agram	1	0.7
Medical High School Sarajevo	1	0.7
Total	150	100,0

To examine employment status (position at the workplace, evaluation in accordance with the acquired skills) among nurses-technicians employed in healthcare institutions in Federation of Bosnia and Herzegovina;

To examine opinions and views on professional competencies acquired through education at the healthcare faculties;

To examine opinions on the possibilities of increasing professional competencies in accordance to the knowledge acquired through education at the healthcare faculties;

To determine opinions on perception of associates toward the possibilities of increasing professional competencies of highly educated nurses/technicians;

To examine the significance of acquired professional competencies for reform process in healthcare system;

To compare acquired results in accordance with the geographical area and workplace of the respondent.

SCIENTIFIC METHODES

RESPONDENTS

Highly educated nurses - technicians employed in public and private healthcare institutions in Federation of Bosnia and Herzegovina participated in the research.

150 respondents took part in the research. Nurses-technicians who did not graduate from the Faculty of Health Studies or those who are in the process of studying were excluded from the research.

RESEARCH METHODS

The research is descriptive, cross-sectional and comparative. For the purposes of the research, an author's questionnaire created based on a review of professional and scientific literature was used.

The questionnaire contained targeted questions with the possibility of circling the already offered answers. The questionnaire was available to the respondents in the electronic application "Google forms", and it was not possible to determine the identity of the respondents from the completed questionnaire.

The research was conducted in the period September 1 – October 31, 2023.

RESEARCH RESULTS

DESCRIPTIVE SAMPLE REVIEW

The sample comprised total of 150 highly educated nurses-technicians who adequately filled online questionnaire created by the aid of “Google forms” in the period from September 1 till October 31, 2023.

Table 1. Basic group of respondents

A review of the health institutions where the respondents work shows that the questionnaire was mostly filled out by nurses-technicians who work in Clinical center of University in Sarajevo in 73 or 48.7% cases followed by

respondents who work in PI Health Center KS in 14 or 9.3% cases, and respondents who work in PHI University clinical center Tuzla and Cantonal hospital Zenica in 11 or 7.3% cases each.

Table 2. Review of respondents' professional qualifications

Professional qualifications	N	%
Post-secondary school qualification	13	8.7
University qualification	114	76.5
MA, PhD, prof. qualification	22	14.8
Total	149	100.0

The majority of respondents completed Faculty of health studies in 114 or 76.5% cases, in 22 or 14.8% cases they completed postgraduate study, while 13 or 8.7% completed Higher medical school.

Table 3. Review of respondents' opinions on knowledge and skills acquired during their education

Do you consider that you acquired adequate knowledge and skills required for work during your university education?	N	%
Yes	88	58.7
Partly	49	32.7
No	3	2.0
Total	140	93.3

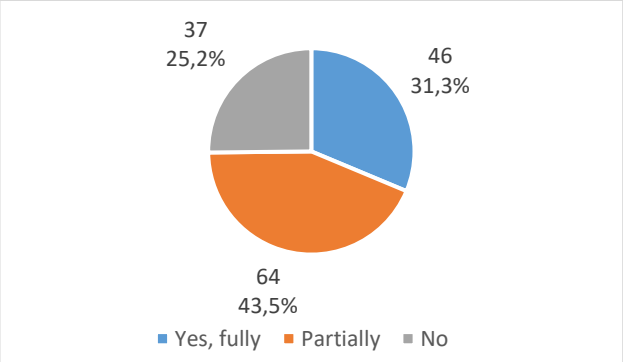
Review of respondents' opinion on knowledge and skills acquired during their education shows that only 3 or 2.0% of respondents consider that they have not acquired knowledge and skills adequate for work, 49 or 32.7% of respondents consider that they partially acquired adequate knowledge and skills, while 88 or 58.7% think that they acquired them fully.

Table 4. Review of respondents' opinions on whether they perform the work tasks for which they are fully competent

Do you believe that you do not perform work tasks for which you are fully competent?	N	%
Yes	48	32.0
Partly	48	32.0
No	53	35.3
Total	149	99.3

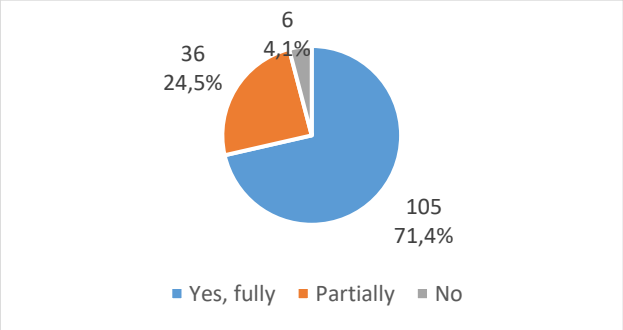
Review of respondents' opinions on whether they perform the work tasks for which they are fully competent shows that 64% of respondents are fully or partly in accord with this statement (48 or 32.0% of respondents each). Out of the total number, 53 or 35.3% do not agree with this statement.

Graph 1. Analysis of respondents' will to implement their acquired knowledge and experience through greater engagement in more responsible work tasks



The respondents would mostly be happy and satisfied if they could implement their acquired knowledge and work experience through greater engagement in more responsible tasks, fully in 46 or 31.3% of cases or partially in 64 or 43.5% of cases.

Graph 2. Analysis of opinions on whether greater employment of graduate nurse-technicians would contribute to the improvement of the healthcare system and patient satisfaction



Respondents mostly completely agree in 105 or 71.4% of cases with the statement "Do you think that greater responsibility of graduated healthcare personnel would contribute to the improvement of the healthcare system and patient satisfaction", partially in 36 or 24.5% cases,

while only 6 or 4.1% of respondents disagree with this statement.

DISCUSSION

Review of respondents' opinions on knowledge and skills that they have acquired during their education shows that only 3 or 2.0% of them consider that they have not acquired adequate knowledge and skills required for work, 49 or 32.7% of respondents consider that they have partially acquired adequate knowledge and skills, while 88 or 58.7% of them consider they have acquired them fully.
A review of respondents' opinions on whether they perform work tasks for which they are fully competent shows that 64% of respondents fully or partially agree with this statement (48 or 32.0% of respondents respectively). Out of the total number, 53 or 35.3% do not agree with this statement.
A review of respondents' opinions on sufficient education to perform larger and more responsible jobs and tasks shows that the majority of respondents fully believe that they have adequate education - 91 or 60.7% of cases, as well as partially in 47 or 31.3%. Only 11 or 7.3% of respondents believe that they do not have adequate education.
Nevertheless, respondents consider that they need additional education for more specific and responsible tasks in the work process, fully in 53 or 35.6% of cases, and partially in 73 or 49.0% of cases.
Respondents in more than half of the cases believe that they are insufficiently professionally engaged in the healthcare system, fully in 41 or 27.3% of cases, and partially in 45 or 30.0% of cases.
Respondents most often do not fear greater responsibility in the work process and decision-making procedures for patients in 99 or 66.0% of cases. This fear is partially present in 44 or 29.3% of respondents, while it is fully present in 7 or 4.7% of respondents.

The correlation analysis of the impact on the respondents' belief of whether they acquired adequate knowledge and skills required for job through university education shows a statistically significant impact of the following variables:

- Age in the sense that younger respondents are more likely to believe that they have acquired adequate knowledge and skills.
- Years of work experience in the sense that respondents with less work experience more often believe that they have acquired adequate knowledge and skills.
- Number of ECTS in the sense that respondents with more acquired ECTS more often consider that they have acquired adequate knowledge and skills.

The correlation analysis of the impact on respondents' belief that they do not perform work tasks for which they are fully competent shows a statistically significant impact of the following variables:

- Studying at a public or private university in the sense that respondents who completed their studies at a private university more often believe that they do not perform these work tasks.
- How do the doctors they work with see their greater participation in the healthcare process, in the sense that respondents who are more often prevented from greater participation by doctors believe that they do not perform more complex work tasks for which they are competent.

The correlation analysis of the impact on respondents' belief that they have adequate education to take on larger and more responsible jobs and tasks shows a statistically significant impact of the following variables:

- Completion of some of the informal training required for job, in the sense that respondents who have completed some of the informal education are more likely to believe that they have adequate education to perform larger and more responsible tasks.
- Use of information technologies in the sense that respondents who fully use ICT more often consider that they have adequate education to perform larger and more responsible tasks.
- Additional educations in which greater opportunities and responsibilities are defined in the process of their work, in the sense that respondents who have completed these educations are more likely to consider that they have adequate education to undertake greater and more responsible tasks.

The correlation analysis of the impact on respondents' belief that they need additional education for more specific and responsible tasks in the work process shows a statistically significant impact of the following variables:

- Age in the sense that younger respondents are more likely to believe that they need additional education.
- Years of work experience in the sense that respondents with less work experience more often believe that they need additional education.
- The period since the completion of healthcare or nursing studies, in the sense that respondents who have recently completed their studies are more likely to consider that they need additional education.

The correlation analysis of the impact on the respondents' belief about whether they are seen as a sufficiently professionally engaged in the healthcare system shows a statistically significant impact of the following variables:

- Recognition of the coefficient of higher vocational education in the sense that respondents who did not have the coefficient recognized by the institution more often believe that they are not professionally engaged enough.

The correlation analysis of the impact on respondents' fear of greater responsibility in the work process and decision-making procedures for patients shows a statistically significant impact of the following variables:

- Gender in the sense that medical technicians show fear more often.

- Years of work experience in the sense that respondents with less work experience show fear more often.
- Completion of some of the informal trainings necessary for work in the sense that respondents who did not complete the trainings more often show fear.
- Workplace in the sense that respondents who work as ward nurses-technicians show fear more often.
- The physician's view on the examinee's participation in the work process according to competence and professional training, in the sense that the respondents who are not given enough tasks by the doctors in accordance with the competences show fear more often.
- Additional training, which defined greater opportunities and responsibilities in the work process, in the sense that respondents who did not undergo this training more often show fear.

The authors Buljubašić, A., Orlandini, R., Marendić, M. (2019), surveyed on the topic „Nursing competency – a link between the theory and practice“. Nursing strives to provide healthcare based on the professional knowledge and skills, which includes the ability to cooperate with other healthcare workers, develop interpersonal relationships, education and teaching, healthcare management, ensuring the safety and effectiveness of healthcare, and expanding the capacity of nursing. All of the above requires defining a wide range of nursing competencies. Nursing competency is the fundamental ability of a nurse required to fulfil nursing responsibilities acquired through experience and learning. The establishment of a thorough and effective programme for the development and defining of nursing competencies is of crucial importance for the development of nursing, providing quality healthcare and meeting the standards of the profession expected of us by regulatory bodies.

In order to achieve this, nurses need to improve their competencies and apply them in practice. Achieving competence for a specific activity involves a complex concept that competency itself contains, namely behaviourism, traits and holism, which means that competence includes the ability to perform basic skills, knowledge, critical thinking and reasoning skills, and adopted attitudes and values required in certain contexts. In the development of nursing competency, the education system, which will modify the outcomes of a particular subject and its structure, and the nursing clinical practice, which will enable the development of competencies, must work in an integrated way.

All this requires defining the competencies that are simple and understandable. Nursing competence is the fundamental ability a nurse should have to fulfil nursing responsibilities and achieve healthcare goals. Therefore, it is important to clearly define nursing competencies so that they form the basis for curricula, syllabuses, and the improvement of nursing practice.

The author Šćepanović, I. (2019) has researched on the topic „Self-analysis of degree of competency and self-esteem in nurses at the Clinics for surgery on Clinical Hospital Center Split“. The feeling of self-esteem and assessment of personal competence in surgical practice are most contributed by: length of clinical experience, training in the clinical area and work in clinical departments where nurses have greater autonomy in decision-making than formal education (basic or advanced). This conclusion applies to all areas of nursing competence except healthcare planning, where self-analysis of skills differs according to professional education.

The author Busančić, S. (2017) has done a survey on the topic „The impact of nurses' education degree on the quality of daily nursing practice“. To meet the increasingly complex demands of healthcare, a nurse must possess a high level of knowledge, the ability to make critical decisions independently, organisational skills and possess leadership skills. In the conducted research, we determined that there is a significant difference in the attitudes of nurses about the nursing profession and education in relation to their level of education. It is found that the nursing profession and education are conceived more favourably by more educated nurses, and the most positive attitudes about the conceived knowledge important for everyday practice are expressed by graduate nurses or nurses with master's degree.

CONCLUSIONS

1. This paper has proved the main hypothesis that says: „Through higher education nurses/technicians acquire competencies required in new healthcare system“. It proves the fact that only 3 or 2.0% of respondents responded that they have not acquired adequate knowledge and skills required for job, 49 or 32.7% of them believe they have partially acquired adequate knowledge and skills, while 88 or 58.7% of respondents believe they have fully acquired adequate knowledge and skills.
2. The previously mentioned also proved the first auxiliary hypothesis, which says: "The respondents believe that through university education they have acquired knowledge and skills necessary to expand their competencies in practice".
3. The paper also proved another auxiliary hypothesis which says: "The respondents believe that by expanding their competencies they can undertake more specific and responsible tasks". This is supported by the response of the respondents, where the respondents believe that they need additional education for more specific and responsible tasks in the work process, fully in 53 or 35.6% cases, and partially in 73 or 49.0% cases.
4. The third auxiliary hypothesis was also proven in the research, and it says: "The respondents are of the opinion that greater responsibilities in line with expanded competencies in work would contribute to the improvement of services in the healthcare system and patient satisfaction". Respondents in more than

half of the cases believe that they are insufficiently professionally engaged in the healthcare system, fully in 41 or 27.3% cases, and partially in 45 or 30.0% cases.

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ASSESSMENT OF NURSES' AND TECHNICIANS' KNOWLEDGE OF THE USE OF ADVANCED THERAPEUTIC DRESSINGS IN THE MANAGEMENT OF CHRONIC WOUNDS: IMPLICATIONS FOR CONTINUING PROFESSIONAL DEVELOPMENT

PROCJENA ZNANJA MEDICINSKIH SESTARA I TEHNIČARA O UPOTREBI NAPREDNIH TERAPEUTSKIH ZAVOJA U LIJEČENJU HRONIČNIH RANA: IMPLIKACIJE ZA KONTINUIRANI PROFESIONALNI RAZVOJ

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SAŽETAK

UVOD: *Rane predstavljaju složeni medicinski problem, čiji tretman je određen kategorizacijom rana prema uzroku i vremenu zacjeljenja. Akutne rane često zacjeljuju bez komplikacija dok hronične rane ne napreduju uobičajenim fazama zacjeljenja i one zahtjevaju poseban pristup. Efektivno zbrinjavanje hroničnih rana zahtijeva tačnu procjenu, upotrebu modernih zavoja, te visok nivo znanja i vještina sestara i tehničara.* ***METODOLOGIJA****: Putem društvenih mreža je poslan anonimni anketni upitnik u koji je uključeno 196 sestara i tehničara. Istraživanje je obuhvatilo demografske podatke, ranije znanje o upotrebi modernih zavoja, kao i procjenu zadovoljstva prethodnim obrazovanjem i obukom.* ***DISKUSIJA I ZAKLJUČAK****: Rezultati istraživanja su pokazali da većina učesnika dobro poznaje karakteristike rana, ali da ne posjeduju dovoljno znanja za odabir savremenih zavoja. Kao ključni problemi navedeni su nezadovoljstvo nivoom njihovog znanja i potreba za dodatnom obukom. Ovi rezultati ističu potrebu za nastavkom profesionalnog usavršavanja sestara i tehničara u njezi hroničnih rana i upotrebi savremenih zavoja. Preporučeno je proširiti opseg obuke sestara i tehničara radi usavršavanja njihovog znanja i vještina u pružanju visokokvalitetne njege pacijentima sa hroničnim ranama. Potreban je neprestani profesionalni razvoj i prilagođavanje nastavnog plana u sestrinstvu da bi se osigurala efektivna i savremena njega za ove pacijente.* ***KLJUČNE RIJEČI:*** *rana, sestrinska njega, pacijent, znanje, sestra/tehničar*

ABSTRACT

INTRODUCTION: *Wounds are a complex medical problem, and their categorisation by cause and healing time determines the treatment approach. Acute wounds often heal without complications, whereas chronic wounds do not progress through the usual healing phases and require a specialised approach. Effective management of chronic wounds necessitates accurate wound assessment, the use of modern dressings, and a high level of knowledge and skill from nurses and technicians.* ***METHODOLOGY:*** *An anonymous questionnaire was distributed via social networks, surveying 196 nurses and technicians. The survey encompassed demographic data, knowledge of the use of modern dressings, and satisfaction with previous education and training.* ***DISCUSSION AND CONCLUSION:*** *The survey results showed that the majority of participants had a good understanding of wound characteristics but insufficient knowledge of how to select appropriate modern dressings. Dissatisfaction with the level of their knowledge and the need for additional training were highlighted as key findings. These findings emphasise the need for continued professional development of nurses and technicians in the care of chronic wounds and the use of advanced dressings. It is recommended to broaden the scope of training of nurses and technicians to include the development of their knowledge and skills in providing high-quality care to patients with chronic wounds. Continuing professional development and the adaptation of nursing curricula are essential to ensure effective and modern care for these patients.* ***KEYWORDS:*** *wound, nursing care, patient, knowledge, nurse/technician*

INTRODUCTION

Wounds can be categorised according to their origin and the duration of the healing process. Primary categorisation is based on the factors that led to the injury. Wounds are also categorised by the time they take to heal. Acute wounds are usually caused by accidents or surgical procedures and heal within a predictable time frame, depending on the size, depth, and extent of tissue damage. In contrast, chronic wounds do not progress through the typical healing phases and do not heal within the expected time frame. They are usually the result of burns, pressure ulcers, and leg ulcers. Any wound that does not heal within 6 to 8 weeks is categorised as chronic (1). Risk factors that contribute to the development of chronic wounds include smoking, a sedentary lifestyle, inadequate nutrition, chronic metabolic diseases such as diabetes, advanced age, and chronic cardiovascular disease. Recognising whether a wound is acute or chronic is crucial for choosing the appropriate treatment, as the healing processes differ significantly (2). Chronic wounds can be divided into typical and atypical wounds. They not only impair the patient's quality of life, but also represent a considerable burden for the healthcare system. Epidemiological data show that chronic wounds affect 1 to 2% of the population, and their treatment can account for up to 4% of the healthcare budget. With the increase in the elderly population and unhealthy lifestyles, these figures are expected to rise (3). Effective wound management requires accurate wound assessment and continuous monitoring of the healing process. A moist microenvironment, achieved through the use of specialised dressings, promotes accelerated wound healing through faster epithelialisation (4). The complexity of chronic wounds requires a multidisciplinary approach in which nurses and technicians play an important role. Their expertise, skills and commitment are key to the full and effective recovery of patients with chronic wounds (5).

OBJECTIVES

The aim of this survey was to assess the knowledge of nurses and technicians regarding the application of advanced wound dressings. The following research questions were formulated:

1. How satisfied are nurses and technicians with their knowledge of the basic characteristics of wounds?
2. Do nurses and technicians have sufficient knowledge to independently select modern therapeutic dressings according to the type of wound?
3. Are the nurses and technicians satisfied with the training they have received in the use of advanced wound dressings?

The goal was to gain insight into the level of expertise and satisfaction among nursing staff and to identify potential needs for additional training and advancing the use of modern dressings.

METHODOLOGY

The survey used an anonymous questionnaire entitled "Nurses'/Technicians' knowledge of the use of advanced therapeutic dressings", which was created using Google Forms and distributed via Facebook and Instagram. A total of 196 participants took part in the survey. Participants were required to have at least a general nurse/technician qualification and/or a completed bachelor's degree in nursing if they had not attended a secondary nursing school. The questionnaire consisted of 19 closed questions divided into three sections: the first related to sociodemographic data, the second to existing knowledge about the use of advanced therapeutic dressings, and the third asked questions about participants' prior training in the use of such dressings. The data were collected from 10 March 2023 to 20 March 2023. The results are presented using descriptive statistics for the demographic data, while knowledge test results were analysed using measures of central tendency and dispersion (median, range, and interquartile range) and tested for normality of distribution using the D'Agostino-Pearson test. The knowledge of various wound characteristics was analysed using the Analysis of Variance (ANOVA). All statistical analyses were performed using MedCalc 20.305 (MedCalc Software Ltd, Ostend, Belgium), with a P value of less than 0.05 considered statistically significant. The survey was anonymous and adhered to all ethical principles.

DISCUSSION

A total of 196 people were surveyed. Most participants were female (85.7%) and the largest age group was 19-25 years old (39.3%). The majority (60.2%) had secondary school nursing education, 31.1% had a bachelor's degree, 8.2% had a master's degree, and 0.5% had a doctorate. Participants with less than 5 years of work experience accounted for 43.4%, while 56.5% had between 6 and 31+ years of work experience. Most participants (41.3%) worked in secondary healthcare, with the remainder working in primary and tertiary healthcare, or outside the healthcare system.

To assess their knowledge of modern therapeutic dressings, participants were asked seven questions. The first four questions tested their ability to recognise the tissues present in the wound, and the fifth question tested their ability to recognise the infection status of the wound. The last two questions asked participants to select appropriate modern therapeutic dressings. It was not emphasised that a respondent could select multiple dressings, which may have influenced the results. The average number of correct answers for all participants was 4.8 out of 7. For recognising wound characteristics, the average number of correct answers was 4.4 out of 5, while for selecting advanced dressings it was 0.4 out of 2. These results indicate competence in recognising wound characteristics but not in selecting appropriate dressings. These findings are consistent with other studies. A 2021

study conducted in Nigeria by Obilori et al. showed a lack of competence among nurses in wound assessment, while a 2022 study conducted in Saudi Arabia by Aldousari et al. demonstrated a satisfactory level of competence and skills in dressing wounds (6,7). The majority of participants in this survey expressed dissatisfaction with their knowledge of the use of modern therapeutic dressings. This mirrors another survey conducted in Croatia in 2021, which also found a high level of dissatisfaction with one's own knowledge in this area. In the Croatian survey, 77.6% of respondents cited the lack of employer support for additional training on wound care as the main reason (8). Similarly, a Canadian study by Price and Reichert (2017), which emphasised the importance of lifelong learning for nurses and technicians, also identified a need for continuous professional development (9). Work environments that invest in professional development are essential for optimal patient care and for the retention and recruitment of healthcare professionals (9).

Theoretical knowledge and practical experience are the main components in the training of nurses and technicians. The former forms the basis for practice, while the latter enables the application of this knowledge in real-life situations. Nursing is a scientific discipline that relies on applied research and theoretical concepts, and, above all, on the integration of theory and practice (10, 11, 12, 13, 14). Most respondents expressed a desire to participate in practical wound care training, which is in line with Bernard's principle emphasising the importance of the practical application of learning for adults (15).

In Turkey, Günay and Kılınç (2018) investigated how nursing students apply theoretical knowledge in the clinical setting. They found that students are often overwhelmed with theoretical information that they find difficult to apply in practice and are thus full of apprehension and self-doubt when they start working with patients. The authors suggested strengthening collaboration between educational institutions, hospital staff, and administrations to improve clinical education. Additionally, the use of modern therapeutic dressings requires a high level of knowledge and skills, including an understanding of the pathophysiology of chronic wounds. The survey results showed a significant need for additional training in this area, particularly because participants were dissatisfied with their competence and understanding of the application of advanced dressings (16). These authors advocate for mandatory education and training in chronic wound care and the application of modern therapeutic dressings for nurses and technicians at all levels (16).

CONCLUSION

The study highlights several important issues that require further consideration and investigation. Limitations, such as the small number of participants and the focus on basic wound characteristics without testing theoretical knowledge of modern therapeutic dressings, indicate the need for further research to gain a more detailed understanding of the overall knowledge of nurses and technicians. Despite the high level of knowledge as regards wound characteristics, participants faced challenges in the selection and application of modern wound dressings, which enable moist healing and have shown significant benefits in treatment. Given the increasing number of cases of chronic wounds, it is recommended that both the education and in-service training of nurses and technicians in chronic wound care and the application of advanced dressings be expanded to enhance their ability to provide high-quality care. This underscores the importance of continuous professional development and adaptation of nursing curricula to ensure efficient and modern care for patients with chronic wounds.

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RISK MANAGEMENT IN THE FACILITIES FOR ACCOMODATION AND HEALTHCARE OF ELDERLY PEOPLE

UPRAVLJANJE RIZICIMA U USTANOVAMA ZA ZBRINJAVANJE I ZDRAVSTVENU NJEGU STARIJIH LJUDI

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SAŽETAK

UVOD: *Upravljanje rizicima može biti svjesno ili nesvjesno, ali skoro nikada sistematično. Najčešće detektovani rizici unutar institucija za smještaj i njegu starijih su rizici od ambijenta odnosno prostora u kome žive starije osobe, rizici od požara, poplave, prekida snadbjevanja energentima, rizici u procesu zdravstvene njege i dr.Rizici u procesu zdravstvene njege su brojni. Najčešći rizici odnose se na: lošu komunikaciju između osoblja, klijenata i članova porodice, pada, opekotine, pojavu dekubitalne rane, infekcije i smrti nastale u nerazjašnjenim okolnostima.* ***CILJ RADA:*** *Ciljevi završnog rada su analizirati i utvrditi najčešće detektovane rizike u institucijama, te učestalost pojavljivanja i preveniranja neželjenih događaja.* ***METODE RADA I ISPITANICI:*** *Istraživanje će biti provedeno među osobljem ustanova socijalne zdravstvene zaštite u privatnom i javnom sektoru na području Kantona Sarajevo. Za istraživanje će biti korišten orginalni autorski upitnik kreiran na osnovu pregleda standardiziranih upitnika o upravljanju rizicima, pregleda stručne i naučne literature.* ***REZULTATI ISTRAŽIVANJA:*** *Kroz dobivene rezultate zaključujemo da su najčešći rizici u ustanovama za stare i nemoćne rizici od pada i dekubitisa, te da medicinsko osoblje najčešće prijavljuje neželjene situacije i događaje koji se događaju.* ***KLJUČNE RIJEČI:*** *rizik, pad, dekubitis, stare osobe, institucije, higijena, skala za procjenu rizika*

ABSTRACT

INTRODUCTION: *Risk management can be done consciously or unconsciously, but almost never systematically. The most commonly identified risks within the facilities for the accommodation and care of the elderly are those arising from the environment or the space where the elderly live, risks from fire, flooding, energy supply interruptions, risks in the healthcare process, etc. Risks in the healthcare process are numerous. The most common risks relate to: poor communication between staff, clients and family members, falls, burns, occurrence of decubitus wounds, infections and deaths arising from unexplained circumstances.* ***RESEARCH OBJECTIVES:*** *Objectives of this paper are to analyse and determine the most commonly identified risks within the institutions and the frequency of occurrence and prevention of unwanted events.* ***WORK METHODS AND RESPONDENTS:*** *The research was conducted among the staff of the social healthcare institutions in the private and public sector on the territory of Sarajevo canton. For the purposes of the research, an authentic author's questionnaire created based on a review of standardized questionnaire on risk management and professional and scientific literature was used.* ***RESEARCH RESULTS:*** *Based on the acquired results it can be concluded that the most frequent risks within the facilities for the accommodation and care of the elderly and powerless people are risks from falls and decubitus, and that medical staff most often reports unwanted situations that happen.* ***KEY WORDS:*** *risk, fall, decubitus, elderly people, institution, hygiene, risk assessment scale*

INTRODUCTION

Risk management within the organisation should be recognized as an integral part of good management, i.e. as part of the organisational culture. Risk management should be included in the organisation's philosophy, practices and business plans, and not be seen as a separate program. Risks are an integral part of everything we do and cannot be eliminated 100%. Risk management can be done consciously or unconsciously, but almost never systematically. The most commonly identified risks within the facilities for the accommodation and care of the elderly are those arising from the environment or the space in which older people live, risks from fire, flooding, disruption of energy supplies, risks in the healthcare process, etc. The most effective framework for risk management in healthcare is written policies and procedures, and other standardized quality documents. In order to minimize risks in the healthcare process, it is necessary to conduct appropriate assessments using standard scales and tests, such as KAC index, scales for assessment of falls, decubitus, etc.

To achieve an appropriate risk management process, five key elements are used, such as: identification, assessment, control, financing and monitoring. Risk assessment is a process that helps to understand the scope of the risks we face (internally and externally), the level of ability to control the risks, the likelihood of occurrence and the potential impacts. An assessment is carried out to determine the severity of each risk by assessing the likelihood of its recurrence and the consequences it may produce. Risk control measures the flow of the risk identification and analysis process. Risk control includes both measures, those that prevent the risk from occurring and those that reduce the loss when the risk occurs. Risk control aims to: prevent errors from occurring; protect patients, staff, visitors and property from harm; detect and limit the scope and impact of any loss; maximize the potential for recovery after damage/loss has occurred. It is also necessary to ensure that the personnel involved in the risk management process take responsibility for conducting monitoring in a serious and professional manner, to ensure that the risk avoidance system continues to work and to further learn from the situations that have arisen. At the level of each social healthcare institution, a robust risk management framework is required. Primarily because service users look for affordable, safe and quality care, because lawsuits against caregivers and managers of social healthcare institutions are on the rise.

RESEARCH OBJECTIVES

1. To determine whether the institution has established strategic frameworks for risk management.
2. To determine the most commonly identified risks in the institution.
3. To examine the frequency of unwanted events and incident situations.
4. To determine the frequency of reporting unwanted events and incident situations in the healthcare process.
5. To examine ways and models of risk prevention in the healthcare process.
6. To determine and evaluate the practice of nurses in the process of managing risks and adverse events.

MATERIAL (RESPONDENTS) AND RESEARCH METHODES

RESPONDENTS

The survey was conducted among the personnel of social healthcare institutions which operate in the private and public sector on the territory of Sarajevo canton. Total of 123 respondents took part in the survey – all employed in the facilities for the accommodation and care for elderly people. The institutions that the survey was conducted in were: Cantonal public institution Gerontology center Sarajevo and The institution of social care „Park“ Vogošća.

RESEARCH METHODS

The research is quantitative, descriptive, cross-sectional study. For the purposes of the research, an authentic author's questionnaire created based on a review of standardized questionnaire on risk management and professional and scientific literature was used. The questionnaire was created in the electronic form "Google forms" and it was available to the respondents by e-mail. The research was conducted from January 1, 2003 till April 1, 2023. The questionnaire was anonymous, and it was not possible to determine the identity of the respondents from the offered responses. The scientific methods that were used are the methods of induction, deduction, synthesis, compilation etc.

CRITERIA FOR INCLUSION IN THE STUDY

Inclusion criteria: professional staff permanently employed in the facilities for the accommodation and care of the elderly (social workers, nurse-technicians, caregivers, psychologists, doctors) were included in the research.

CRITERIA FOR EXCLUSION FROM THE STUDY

Exclusion criteria: auxiliary staff employed in the institution (porters, cooks, waitresses, cleaners), as well as staff who work temporarily in the institution (volunteers, etc.), and staff who are not in permanent employment were excluded from the research.

STATISTICAL PROCESSING

Statistical processing of the data was carried out in cooperation with a statistician using descriptive and inferential statistics through proposed parametric and

non-parametric tests depending on the normality of the distribution of the obtained data.

RESEARCH RESULTS

The research was conducted among the personnel of the social healthcare institutions in private and public sector on the territory of Sarajevo canton. Total of 123 respondents participated in the research – all employed in the facilities for accommodation and care for elderly people. The institutions that the survey was conducted in were: Cantonal public institution Gerontology center Sarajevo and The institution of social care „Park“ Vogošća. The research was conducted from January 1, 2003 till April 1, 2023.

Table 1. Review of the institutions

Institution	N	%
CPI Gerontology center Sarajevo	88	71.5
Nursing home "Park" Vogošća	35	28.5
Total	123	100.0

Total of 88 (71.5%) respondents from Cantonal public institution Gerontology center Sarajevo and 35 (28.5%) respondents from The nursing home „Park“ Vogošća participated in the research

Table 2. Review of the years of work experience in nurse/technician/caregiver's practice

Years of work experience in nurse/technician/caregiver's practice	N	%
0-10 years	99	80.5
11-20 years	17	13.8
21-30 years	4	3.3
More than 30 years	3	2.4
Total	123	100.0

Table 2 shows the years of work experience in the practice of medical staff, and the largest number of respondents have 0 to 10 years of work experience, total of 99 respondents (80.5%), while 17 respondents have 11 to 20 years of work experience (13.8%), only 4 respondents have 21 to 30 years of work experience (3.3%), and 3 respondents have more than 30 years (2.4%).

Table 3. Review of respondents' professional qualifications

Professional qualifications	N	%
Secondary school qualification	105	85.4
Post-secondary school qualification	2	1.6
University qualification	13	10.6
Master, PhD, prof. qualification	3	2.4
Total	123	100.0

The highest number of respondents have high school degree, 105 (85.4%), 13 respondents (10.6%) have university degree, and 2 respondents have post-secondary school degree (1,6%) and 3 of them have a master’s or PhD degree (24%).

Table 4. Review of share of adopted policies and procedures where risks in the care/healthcare process are emphasized

Do you have adopted policies and procedures in your institution where risks in care/healthcare process are emphasized?	N	%
Yes	76	61.8
Partly	40	32.5
No	7	5.7
Total	123	100.0

Table 4 shows responses to the question whether there are adopted policies and procedures in the institutions where the respondents work, in which the risks in the healthcare process are highlighted. The highest number of the respondents answered that there are, 76 of them (61.8%), while 40 respondents responded with partially (32.5%), and in 7 cases (5.7%) the answer was no.

Table 5. Review of share of reporting and analysis of unwanted events in the institution

Do you report and analyse unwanted events in your institution?	N	%
Yes	71	57.7
Partly	37	30.1
No	5	4.1
No, because we do not know who to report to	10	8.1
Total	123	100.0

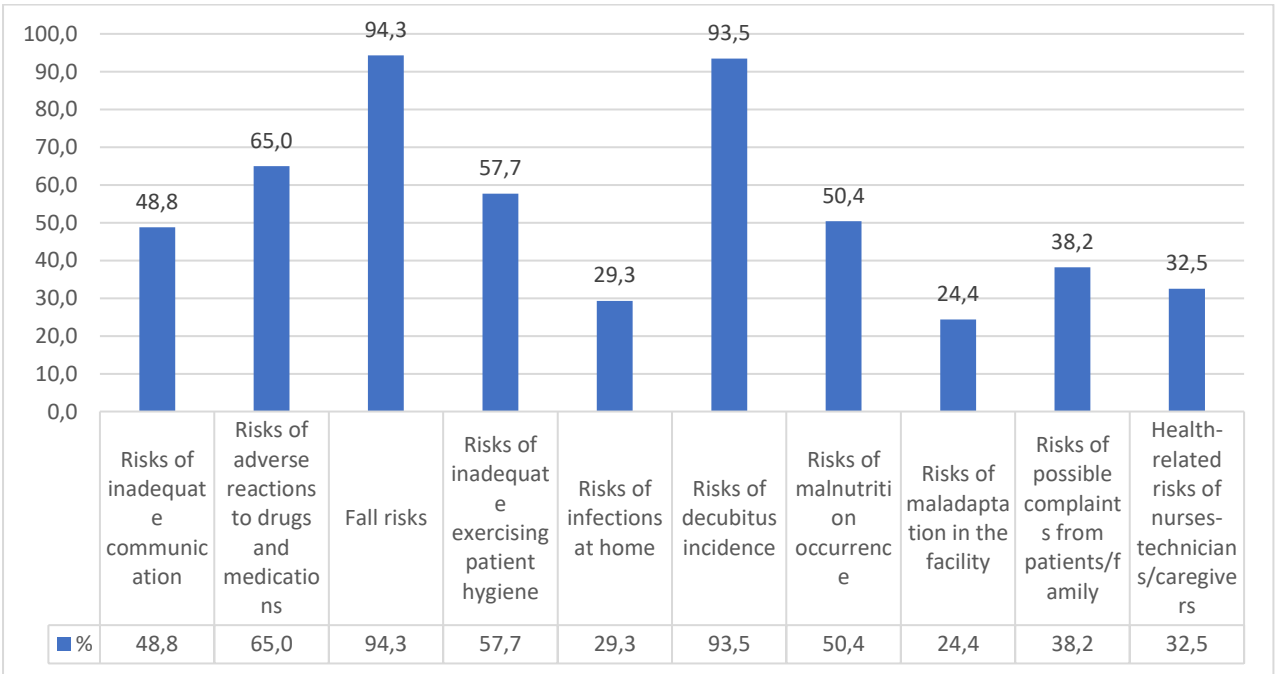
When asked whether they report and analyse the events in the institution, the largest number of respondents answered that they report them, 71 of them (57.7%), the answer was partially in 37 cases (30.1%), 5 respondents answered with no (4.1%), and 10 of them (8,1%) answered that they do not know who to report to.

Table 6. Review of the presence of risky situations in practice that are prevented in time

Did you have risky situations in the work process that you prevented in time in your former practice?	N	%
Yes, quite often	69	56.1
Partially	41	33.3
No	13	10.6
Total	123	100.0

When asked whether they encountered risky situations in their practice in the work process the largest number of respondents answered that they did, quite often, 69 of them (56.1%), while 41 respondents answered with partially (33.3%), and 13 respondents answered that they have never encountered risky situations (10.6%).

Graph 1. Review of monitoring certain risks for clients/patients



The graph presents a review of the monitoring of certain risks for clients/patients, among which the largest number of risks is the risk of a patient falling, total of 116 (94.3%), and then risk of decubitus occurrence, 115 (93.5%). Also, there is a large number of risks of unwanted reactions to drugs and medical devices, total of 65% cases, as well as of risks of inadequate implementation of patient hygiene, 57.7% cases. The lowest number of risks is from maladaptation in the institution

DISCUSSION

The research covered a total of 88 (71.5%) respondents from the Cantonal public institution Gerontology center Sarajevo and 35 (28.5%) respondents from Nursing home „Park“ Vogošća.

The largest number of respondents are female, from the age group 18 to 25 years, and the largest number of respondents have 0 to 10 years of work experience. When asked whether they carry out categorization and assessment of clients/patients for health care, the largest number of respondents answered positive, 84 of them (68.3%). In the institutions where the respondents work, there are adopted policies and procedures that emphasize the risks in the healthcare process.

When asked whether they monitor risks for patients or clients, the largest number of respondents answered that they do, 92 of them (74.8%). The greatest number of risks is from patients falling, and from the occurrence of decubitus. Also, there is a large number of risks of unwanted reactions to medicines and medical devices, total of 65%, as well as risks of inadequate patient hygiene, 57.7%.

When asked how they perform risk assessment in the healthcare, the largest number of respondents answered they do it by examining the patient, i.e. general inspection and direct insight.

In their research conducted at Clinical center of University in Sarajevo during the period 2016-2018 the authors have demonstrated risk monitoring in healthcare, and they have ascertained following: the most commonly reported risks are the risks of falling, pressure ulcers and hospital-acquired infection. The paper presents the indicators of unwanted events, and based on them it can be determined whether the rate of falls, pressure ulcers and hospital infections has been reduced year after year by introducing standards in the healthcare (116).

In general, fractures are the most common serious fall injury in the elderly. Specifically, hip, wrist, humerus, and pelvic fractures in this age group result from the combined effects of falls, osteoporosis, and other factors that increase susceptibility to injury. Each year in the United States, there are approximately 220,000 hip and wrist fractures in people over the age of 65 (117). Although precise estimates are not available, there are several times more fractures of other bones in people 65 years and older than hip and wrist fractures. Other serious injuries resulting from falls include hematomas, joint dislocations, serious lacerations, sprains, and other disabling soft tissue injuries. There is little data on fall-related injuries other than fractures in the US population. In a regional study in Northeast Ohio, emergency department treatment rate for fall injuries in persons 75 years and older was 80 per 1000 per year for women and 60 per 1000 per year for men (118). In another recent study in Dade County, Florida, an exponential increase with age in the rate of fall injuries receiving hospital and emergency treatment in persons aged 65 years and older (119). These rates were higher for women than men in all age groups. For those aged 75 and over, the rate of fall injury was over 100 per 1000 per year for women, and over 80 per 1000 per year for men. Around 40 percent of the fall injuries treated were fractures.

However, most falls, do not cause so many injuries that medical attention is required. Only 3 to 5 percent of falls among seniors in community-dwelling and nursing homes seniors result in fractures, with less than 1 percent of falls resulting in hip fractures. Only about 5 to 10 percent of falls result in other serious injuries that require medical treatment. Between 30 and 50 percent of falls result in various minor soft tissue injuries that do not require medical treatment; the remainder cause no injuries or only minor damage.

Several large surveys of community falls in this country and elsewhere have been retrospective, asking respondents about falls in the past year. This focus likely results in significant underreporting and misclassification. Still, these studies find that about one-quarter of people aged 65 to 74 and a third or more of people aged 75 and older report a fall in the previous year, numbers roughly consistent with 12-month recall data from the National health interview (120). About half of those older adults (of all ages) who report falling in the previous year fall two or more times, a finding consistent with recent prospective studies. The rate of falls is even higher in healthcare settings, with an annual average incidence of around 1600 per 1000 patients in nursing homes (121).

Seventeen percent to 35% of patients have pressure ulcer at the time of admission to a nursing home, and the prevalence of pressure ulcers in nursing home residents ranges from 7% to 23%. In high-risk patients, the incidence of pressure ulcers is estimated at 14/1000 patient-days. People with limited mobility, who cannot feel the need to move, who suffer from fecal incontinence, or who are unable to feed themselves are at a higher risk of developing pressure ulcers. Occlusive dressings are just as effective and cheaper than conventional wet-dry saline dressings in the treatment of early stages of pressure ulcers. There is no consensus on the use of specialized beds in nursing homes to accelerate the healing of advanced ulcers or to reduce the incidence of ulcers in high-risk patients. Specific interventions should not detract from careful, complete assessment and treatment of the patient. Pressure ulcers in nursing homes are a common problem associated with significant morbidity and mortality. As resident characteristics can be used to identify which residents are at a risk of developing ulcers, preventative measures can be implemented at an early stage. Treating pressure ulcers at an advanced stage is expensive and time-consuming. The involvement of doctors in multidisciplinary homes for the elderly is crucial for prevention and treatment (122).

During hospitalization, respondents usually examine the skin and mucous membranes of patients once a day in the morning. As for the scales for assessing the risk of falling, the largest number of respondents use them, namely the Braden scale, and as a scale for assessing the risk of pressure ulcers, the largest number of them use the

Norton scale.
The Norton scale, unlike the Braden and Knoll scales, was designed in European countries and it is very popular for a quick assessment of the risk of pressure ulcers. It consists of 22 five subcategories with a range of values from 1 to 4 (1 for the least, 4 for the most) and a range of results from 5 to 20 points. Higher scores on the Norton scale indicate a lower level of patient independence (123).

When asked how they deal with patients who have an indwelling urinary catheter, the largest number of respondents answered that they check the catheter daily. Almost all respondents answered that they wash their hands hygienically before and after the procedure. Most respondents perform a nutritional assessment of a patient who is artificially fed based on the patient's general status, and monitor the daily nutritional intake of patients who are artificially fed. During patient visits, the largest number of respondents visit patients and perform monitoring.

The research results show that there are no unfavourable agents in the work environment that affect their health; of the respondents who answered that there are unfavourable agents, the largest number answered that they are physical agents. When asked what the working environment is like at the work, the majority of respondents answered that it is pleasant, social and motivating. When asked whether they believe that certain risks cannot be prevented due to a lack of performers in the care process, 60 respondents answered yes, completely (48.8%), 36 respondents answered partially (29.3%), and 27 of them answered negatively (22%).

Based on the correlation analysis, it is clear there is a strong correlation between the risky situation in the work process, which the respondents prevented in time, and the implementation of the categorization and assessment of clients for the healthcare. Also, the correlation between adopted policies and procedures in which risks in the care process and risky situations in the work process are emphasized is high and shows a strong link.
There is a strong correlation between the risk of inadequate patient hygiene and risky situations in the work process, and a high correlation is also observed between the risk of pressure ulcers and risky situations in the work process. The correlation between hygienic hand washing before and after the procedure and risky situations in the implementation of the work process is high. There is a strong connection between the monitoring of daily nutritional intake in patients who are fed artificially and risky situations in the implementation of the work process, as well as between the lack of performers in the healthcare process and risky situations in the work process.
The link between risky situations in the implementation of work processes and reporting and analysis of adverse events is also significant and high. The results of the correlation analysis are significant at the level of $p<0.05$.

In a study researching the attitudes and experiences of nursing home residents and staff, Ryan and Moore (2021) found that high staff turnover can significantly impede the promotion of relationship-centered care and resident autonomy. Their findings revealed that when only one person was skilled in a particular area and then resigned from their position, for example an activity coordinator, activities and social outings for residents were cancelled. Not only did the nursing home exhaust that resource, but due to high turnover and understaffing, the staff prioritized the residents' physical needs over their social and psychological care (124).
The findings from the study conducted by Thompson et al (2015) revealed several background factors of the difficulties in hiring and keeping caregivers in nursing homes (125). Nurses reported feeling stigmatized by their NHS colleagues because of the perceived low-status nature of their work. The ageist attitude of some healthcare professionals has been found to contribute to the perception that geriatric nurses are less skilled than other nurses.
Nurses were also concerned that privately owned care homes were prioritizing profits over people, leading to high levels of moral distress among staff. While the main difficulty nurses faced was the tension between care and funding, many nurses saw a key part of their role as supporting residents in making decisions related to their transition to a nursing home. Nurses felt that an essential part of the mutual decision-making process involved showing potential residents around the home and discussing how the home could best meet their specific needs (125).

In the Netherlands Koopman et al have found that a more diverse mix of staff skills with a higher percentage of professional nurses had a positive effect on the quality of care and life quality of nursing home residents (126). Empirical research of Aikena et al, clearly demonstrated that a greater mix of registered nurse skills in hospitals was associated with significant reductions in mortality and morbidity rate, greater safety, and higher patient ratings of their care (127). This is a key finding and as it is in a hospital setting, it could be argued that outcomes could be similar in nursing homes. Indeed, these findings can be considered an initial step in gaining insight into how increasing the skill combination of the registered nurse could help to achieve a culture of shared decision making in the nursing home environment. Time pressure, low staff numbers, inadequate combination of skills and staff knowledge levels were identified in the review as the main inhibitors of shared decision making. We urgently need to focus on these inhibiting factors to get to the point where shared decision making becomes embedded in the culture of the nursing home sector.
When asked whether they report and analyse adverse events in the facility the largest number of respondents answered that they do report them, 71 respondents (57.7%).
When asked whether they have encountered risky

situations in their practice in the work process, the majority of respondents answered yes and very often, 69 of them (56.1%), while 41 of them answered with partially (33.3 %), and 13 respondents (10.6%) answered that they had not encountered risky situations.
When asked whether they had an adverse event in their practice that resulted harming the patients, almost all respondents answered that they had not.
The respondents have stated only two descriptions of adverse events that resulted in harming the patients:

- „The low mobility patient who was restless during the night has fallen from the bed and broke his hip. He was treated at the orthopedics, and when he returned he had first degree pressure ulcers.“
- „The patient was immobile and stiff. It was difficult for him to change the position. When the lying position was changed, he would move back. The result was second degree decubitus.

Risk assessments for older people in hospital tend to occur in times of crisis, when a fall results in injury or general impairment due to ill health, and are therefore reactive rather than proactive (128). In such scenarios, healthcare professionals tend to exaggerate the risk to protect themselves and their patients from harm and reduce risk through avoidance strategies, prioritizing the restriction of choices and activities over the patient's choice and dignity. In most acute care settings, healthcare professionals are required to recognize, assess and manage risks to older adults while negotiating and balancing various issues of safety and autonomy (129).
Tensions are exacerbated when clinicians, family members, and older people express different views about the degree and likelihood of risk. Determining an older person's ability to make and implement decisions is considered an essential part of risk assessment.
Cognitive impairment (delirium and/or dementia) may result in a fluctuation or absence of decision-making capacity, but the majority of older people retain full decision-making capacity regarding further care and living arrangements. If an older adult is mentally capable of making a decision and voluntarily chooses to live with a certain level of risk, they have the right to do so. However, it is not uncommon for age stereotypes to effectively dismiss the decision-making capacity of cognitively intact and frail older people, thereby excluding them from important discussions and decisions about their future care and care arrangements. Organizational factors are considered to have a significant impact on the risky practices of healthcare workers. A pervasive culture of defensiveness, fuelled by litigation and investigations in healthcare policy and practice has been blamed for diminishing professional autonomy with health professionals more preoccupied with avoiding criticism and protecting their professional practice than making appropriate decisions for patients. Consequently, healthcare professionals tend to adopt a risk-averse approach with a focus on the frailty and incapacity of the elderly, with the primary concern being the prevention of adverse events within the hospital and at discharge (130).

CONCLUSIONS

1. The majority of respondents that work in the facilities for the accommodation of the older people, 94.3%, have pointed out that there are adopted policies and procedures in which the risks in the healthcare process are emphasized, and which are applied in practice.
2. The most frequently identified risks in the monitored institutions are the risks of patients falling 94.3%, and the risk of pressure ulcers 93.5%. Also, the risks of adverse reactions to drugs and medical devices are monitored and this was confirmed by 65% of respondents.
3. The largest number of respondents, 69.9% of them, perform risk assessment in health care by examining the patient's body, i.e. by general inspection and direct insight into the changes.
4. More than half of the respondents regularly monitors the patients who have temporary body implants /urinary catheter/ and supervises artificial nutrition (nutritional assessment).
5. The majority of the respondents, 87.8% report adverse events and incident situations in the healthcare process.
6. One half of the respondents, 48,8% of them, believes that risks can be prevented by increasing the number of practitioners in the healthcare process.

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THE IMPACT OF INTERGENERATIONAL RELATIONSHIPS BETWEEN OLDER ADULTS AND ADOLESCENTS ON OLDER ADULTS' COGNITIVE ABILITIES – LITERATURE REVIEW

UTJECAJ INTERGENERACIJSKIH VEZA IZMEĐU STARIJIH ODRASLIH OSOBA I ADOLESCENATA NA KOGNITIVNE SPOSOBNOSTI STARIH OSOBA - PREGLED LITERATURE

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SAŽETAK

Zajednička iskustva osoba starije dobi i adolescenata mogu poslužiti kao temelj za izgradnju međugeneracijske povezanosti, koja pruža platformu za poboljšanje socijalne interakcije među spomenutim generacijama kroz provođenje smislenih zajedničkih aktivnosti i razmjenu iskustava. Takav način povezanosti može pozitivno utjecati na socijalnu podršku ali i na kognitivno funkcioniranje osoba starije dobi, jer angažman u smislenim društvenim aktivnostima i razmjena iskustava potiču mentalnu stimulaciju i doprinose očuvanju kognitivnih sposobnosti. U ovom istraživanju napravljen je pregled literature o literaturu o utjecaju međugeneracijskih odnosa između osoba starije dobi i adolescenata na kognitivne sposobnosti osoba starije dobi. Pretraživanje je provedeno u tri baze podataka ScienceDirect, PubMed i Web of Science. Za konačni pregled su odabrana tri članka. Pregledom literature vidljivo je kako međugeneracijski odnosi pozitivno utječu na kognitivne, socijalne i zdravstvene aspekte života osoba starije životne dobi. ***KLJUČNE RIJEČI:*** *međugeneracijski odnosi, osobe starije dobi, adolescenti, kognitivne sposobnosti, dobrobit*

ABSTRACT

Shared experiences between older adults and young people can foster intergenerational connections and enhance social interactions through meaningful activities and the exchange of experiences. These connections not only positively impact social support but can also influence the cognitive functioning of older adults. Engaging in meaningful social activities and sharing experiences promotes mental stimulation, thereby helping to maintain cognitive abilities. This study reviews the literature on the effects of intergenerational relationships between older adults and adolescents on the cognitive abilities of older adults. The literature search was conducted using three databases: ScienceDirect, PubMed, and Web of Science. For the final review, three articles were selected, all demonstrating the positive effects of intergenerational relationships on the cognitive, social, and health aspects of older adults' lives. ***KEYWORDS:*** *intergenerational relationships, older adults, adolescents, cognitive abilities, well-being*

INTRODUCTION

As social beings, humans have an inherent need for interaction at all stages of life (1). For older adults, satisfaction and social support primarily come from their environment and the emotional support from family, friends, and relatives (2). This highlights the importance of mutual interaction (2). Vuletić and Stapić (2013) stress that older adults enjoy spending time with close companions because they know that there is always someone they can turn to for help (2). Some researchers argue that the fundamental human need is the need to belong, driven by the motivation to establish and maintain pleasant, lasting interpersonal relationships (3, 4). Malkić Aličković (2017) believes that people derive satisfaction from interpersonal relationships, fulfilling a basic social need for intimacy (5). Such relationships bring personal fulfilment and satisfaction, which, as Železnik, Kanisek and Železnik (2016) note, shape a person's behaviour towards other community members (6). Older adults often face significant changes such as retirement, the death of a spouse/partner, friends or relatives, and children leaving home, which can lead to feelings of loneliness (7). Ageing also causes neuronal degeneration, leading to changes in synaptic function and gene expression, and a decrease in brain white and grey matter (8). A characteristic of brain ageing is the decline in cognitive abilities, particularly when it comes to processing speed, attention, memory, etc. (8). Like old age, adolescence is marked by numerous changes. Previšić (2010) notes that adolescence is a period of life when the need for social contact and belonging to a group emerges, impacting young people's identity (7). Adolescence is often seen as a happy, active phase with frequent social contacts and intense relationships. However, some adolescents experience isolation and loneliness (6). Milić Babić (2019) emphasises the importance of social support in preventing issues like drug and alcohol abuse and the positive impact that such support can have on school performance (9). Železnik et al. (2016) observe that older adults and adolescents share common experiences - they both go through physical, emotional, and social changes and face the challenge of adapting to new situations, forming relationships, and coping with stress (6). These shared experiences can be a foundation upon which to build intergenerational relationships, enhancing social interaction between the two generations through meaningful activities and experience sharing. These connections foster mutual understanding and respect, positively influencing social support, which is a key protective factor against various negative outcomes according to Milić Babić (2019) (9). Stine-Morrow et al. (2007) suggest that older adults engage in increased social and intellectual activity, aligning with Allport's contact hypothesis (10, 11, 12). Intergenerational connections can strengthen social interactions and have other positive effects, including improved cognitive functioning in older adults, as participation in meaningful social activities and sharing experiences enhance mental stimulation (10). Ličen et al. (2021) highlight the importance of knowledge and experience sharing between different age groups to promote culture and community cohesion. This includes passing on wisdom and traditions from older adults to young people, while the latter group contributes to modernising the lifestyle of the former, helping them adapt to new circumstances (13). Pillemer et al. (2022) state that the transmission of wisdom positively impacts young people by helping them develop important life skills, create new connections and opportunities, and better overcome challenges (14).

Research from the Faculty of Humanities and Social Sciences in Zagreb shows that cognitive training, particularly memory training based on metacognitive changes, can positively affect both cognitive and non-cognitive aspects of older adults' lives (15). This approach can impact personality traits such as optimism, locus of control, and subjective well-being (15). This suggests that intergenerational programmes that incorporate cognitive training and social interaction may synergistically

LITERATURE REVIEW

This study examined the scientific literature on the influence of intergenerational relationships between older adults and adolescents on the cognitive abilities of the former group. The search was conducted in three databases: ScienceDirect, PubMed and Web of Science. The following keywords were used: older adults, cognition, social functioning, intergenerational engagement. English-language literature not older than six years was included, using Boolean operators (AND, OR). The search was conducted on 1 February 2024. The search criteria are listed in Table 1.

Table 1. Search strategy

Core collection	Science Direct	Pub Med	Web of Science
Search string	Older adults, Cognition, Social functioning, Intergenerational engagement,	Older adults, Cognition, Social functioning, Intergenerational engagement,	Older adults, Cognition, Social functioning, Intergenerational engagement,
Number of hits	358	6	5

The search was limited to publications from the last six years (2019-2024). Figure 1 shows the number of articles on the specified topic per year published in these databases.

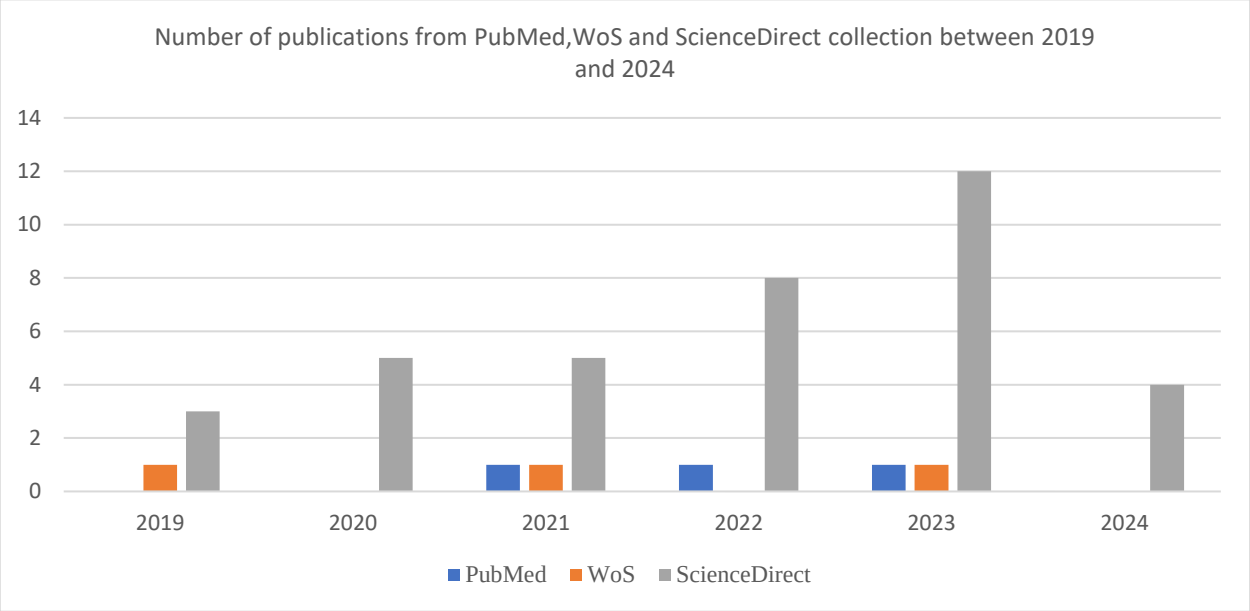

Figure 1: Number of publications from Science Direct, PubMed, and WoS (2019-2024)

According to the inclusion and exclusion criteria listed in Table 2, the search was limited to documents published after 2019 and available in English. Reviews and publicly available papers were included without restriction. The study focused on adolescents aged 13 to 18 years and people aged 65 years and older.

Table 2. Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Population	Older adults 65+ Adolescent 13-18 age	Other
Language	English	Other languages
Text availability	Full text	Other
Publication Years	In the last 6 years	Other

A total of 369 articles were found across the databases: 5 in WoS, 6 in PubMed, and 358 in ScienceDirect. After screening the titles and abstracts and considering the inclusion and exclusion criteria, 325 articles were excluded. Further screening eliminated another 38 articles, leaving 3 articles for the final literature review.
The process of extracting the literature for this review is illustrated in Figure 2.

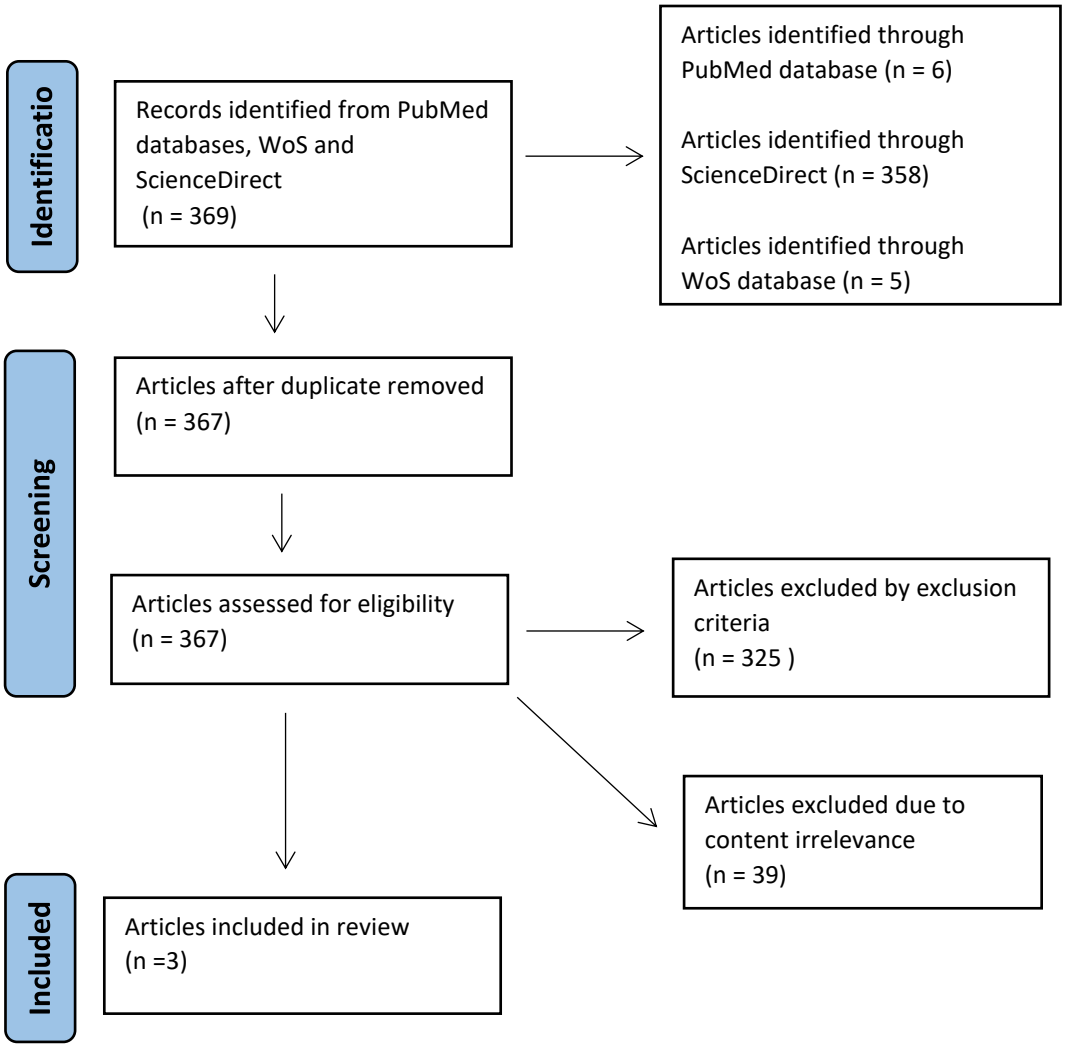

Figure 2. PRISMA flow diagram of the literature search process (Page et al. 2021)

Table 3 shows the aim, results and limitations of the search after reviewing the included articles.

Table 3. Literature review

(Krzeczkowska et al. 2021)		
Purpose	**Outcomes**	**Limitations**
The study investigates the effects of intergenerational contact on cognitive, social, and health outcomes in healthy older adults and those with mild cognitive impairment.	The results indicate that intergenerational contact can have a positive impact, although the degree of effectiveness varies across different domains. Out of eight studies reviewed, four demonstrated that intergenerational contact positively influenced cognitive performance in older adults.	Only studies available in English were included in the review. Furthermore, only 11 studies fully met the criteria for high-quality research. There is also considerable heterogeneity in terms of the programme, the methodology and duration of the research, and the number of participants involved.
(Caputo, Cagney, and Waite 2023)		
The study aimed to investigate the relationship between caring for grandchildren and the cognitive performance of older adults on a longitudinal basis, as well as to examine the heterogeneity of these relationships. The authors sought to understand how caring for grandchildren affects the cognitive abilities of older people, considering variables such as time spent caring, level of engagement, socio-demographic groups, and the presence of cognitive or functional limitations.	The results indicate that caring for grandchildren can positively impact the cognitive abilities of older people. Specifically, older adults who cared for their grandchildren for between 100 and 500 hours in the last two years showed better cognitive outcomes than those who did not.	Due to the methodology used, the study could not accurately distinguish the effects of ageing on cognitive abilities. Additionally, the limited measures of grandchild care in the Health and Retirement Study prevented a detailed analysis of the effects of different levels and types of care. The lack of information on specific caregiving activities, including the number of grandchildren, frequency of caregiving, and transitions between providing and not providing care, also limits a clearer understanding of how grandchild caregiving affects older adults' cognitive abilities.
(Zamir et al. 2021)		
Purpose	**Outcomes**	**Limitations**
The authors aimed to determine how communication between young people and older adults living in nursing homes via Skype affects loneliness, intergenerational connection, and cognitive, health, and social functioning in older adults.	The results show that video call communication enabled older adults, including those with dementia, to socialise beyond their families. Additionally, a noticeable positive effect on mobility and self-care in older adults, including those with dementia, was observed. Although the direct effects on cognitive function were not studied in detail, indirect indicators such as improved self-esteem, improved self-care in regard to personal appearance, and increased social interactions were found to have the potential to positively influence cognitive functioning in older adults.	This study was of short duration and the number of video calls was limited. It relied solely on student and staff feedback. Furthermore, the prompt sheet used as a conversational aid needs improvement to make the conversations as natural and engaging as possible. The study also lacks quantitative tools to measure and demonstrate changes in loneliness, social isolation, and well-being before and after the intervention.

In their systematic literature review, Krzeczkowska et al. (2021) examined the effects of intergenerational engagement on cognitive, social, and health outcomes for older adults (12) using a theoretical framework comprising Allport's contact hypothesis (16), the cognitive theory of ageing (17), and Erikson's model of generativity (18). Although positive changes were observed, the heterogeneity of intergenerational programmes and study methods suggests the need for further research to better understand the conditions under which these programmes are most beneficial. The authors analysed 44 studies. Significant effects of intergenerational relationships on cognitive functioning were found in 4 of 8 studies conducted, positive social effects were found in 15 of 24 studies, and positive health-related outcomes were found in 21 of 31 studies. Qualitative evidence was crucial in understanding the perceived impact and experience of intergenerational programmes. Only 11 studies fully met the criteria for research quality, with most focusing on social outcomes (12). Carlson et al. (2008) investigated the impact of the Experience Corps® (EC) programme on the cognitive abilities of older adults. Participants in this programme showed improvements in executive function and memory compared to the control group, indicating a positive impact of social engagement on mental agility in older adults (19). Particularly noteworthy were the results of participants with impaired executive functions at the beginning of the programme, who showed efficiencies of 44% to 51% in executive function and memory. These findings suggest that programmes like EC may benefit older adults with existing cognitive impairments (19).

Caputo et al. (2023) investigated how providing care to grandchildren affects the cognitive functioning of older adults, considering various contexts such as time spent caring, living arrangements, and socio-demographic differences (20). An analysis of data from the Health and Retirement Study, which tracked over 11,000 Americans from 1998 to 2016, revealed that older adults who provided 100–500 or more hours of care to their grandchildren exhibited better cognitive functioning than non-caregivers. This improvement was observed regardless of whether the grandparents lived with their grandchildren. The positive effects were more pronounced among older adults with lower incomes, those who were not working, those who were not partnered, and those with functional limitations (20). These findings suggest that caring for grandchildren has a beneficial impact on the cognitive health of older adults, particularly those at risk of cognitive decline (20). Ahn and Choi (2019) also demonstrated that caring for grandchildren significantly enhances grandparents' cognitive functioning. Their study found that it improves the overall cognitive functioning score by 30.05%, the orientation score by 19.85%, the delayed recall score by 95.58%, and the language ability score by 30.10% (21). These results highlight the potential benefits of involving older people in the care for the young, not only in strengthening intergenerational relationships but also in enhancing older adults’ cognitive performance and mental health (21).

In 2021, Zamir et al. explored the benefits of intergenerational relationships between secondary school students and older adults in care homes, including several with dementia, through Skype video calls over six weeks (22). This initiative aimed to reduce loneliness and resulted in increased mobility and improved self-care for some older adults. New friendships formed, and the real-time visual interactions allowed participants to see each other’s surroundings. Positive feedback from staff and students suggests that video calls can effectively promote socialisation and reduce loneliness among older people in care homes. The authors recommend future studies to consider the changes in cognitive abilities of people with dementia or early-onset cognitive decline when using video calls for new social contacts (22). Harley and Fitzpatrick (2009) presented a case study of a 79-year-old video blogger known as 'Geriatric1927' and his use of YouTube (23). They highlighted the importance and potential of YouTube as a platform for intergenerational connections and content co-creation, emphasising the value of video content for intergenerational communication. The authors also explored the impact of digital technologies on older people, arguing that ageing is not solely about physical and cognitive decline. They noted that intuitive technological solutions, adapted to the cognitive abilities of older adults, can significantly facilitate their inclusion in the digital world and provide essential community support for daily functioning (23).

STUDY LIMITATIONS

Several limitations were revealed in the process of choosing the studies to be reviewed. Firstly, only English-language studies meeting strict quality criteria were considered, limiting generalisability. Secondly, significant differences in research programmes and methods, as well as in the duration and number of participants, complicated the comparison and didn’t allow a clearer analysis of the effects on older people's cognitive abilities. Methodological limitations also prevented precise determination of how the ageing process affects cognitive function. Additionally, the lack of specific information on care activities, frequency, and changes in care limited a deeper understanding of their impact on cognitive abilities. The short duration of one study and the limited number of video calls reduced the possibility of observing long-term cognitive changes. The reliance on feedback from students and staff, the need to improve the prompt sheet, and the lack of quantitative measures of changes related to loneliness, social isolation and well-being highlighted the necessity for a more comprehensive approach in future research.

RESEARCH RECOMMENDATIONS

To address these gaps, future research should involve a larger sample of older adults with varying cognitive abilities. Longitudinal studies are needed to assess the long-term effects of intergenerational relationships on social, health, and cognitive outcomes. Additionally, intergenerational programmes should be adapted to the specific needs, interests, and cognitive abilities of this group. Qualitative research is also essential to explore older people's experiences, perceptions, and emotional responses to intergenerational activities. Further research could provide deeper insights into the impact of intergenerational activities on older people's personal identity, self-esteem, and sense of belonging. Investigating how different forms of intergenerational relationships affect specific cognitive abilities, such as memory and attention, and exploring ways to stimulate cognitive reserve and prevent or slow down the cognitive decline in older people are also important areas for future study.

CONCLUSION

A review of the literature on intergenerational relationships and their impact on the cognitive, social, and health aspects of older adults' lives demonstrates the potential benefits of these initiatives. Future research should focus on developing tailored intergenerational programmes that consider the specific needs, interests, and cognitive abilities of participants. Larger samples and long-term follow-up are necessary to obtain more reliable results. Additionally, new strategies should be developed to enable easier and more inclusive participation of older people with cognitive, visual, or hearing impairments. Intergenerational programmes are needed to improve the quality of life for this population group by strengthening cognitive function, reducing feelings of loneliness, and promoting social cohesion and intergenerational understanding.

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THE ROLE OF THE NURSE TECHNICIAN IN THE PREVENTION AND INNOVATIVE TREATMENT OF CHRONIC WOUNDS

ULOGA MEDICINSKIH TEHNIČARA U PREVENCIJI I INOVATIVNOM LIJEČENJU HRONIČNIH RANA

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SAŽETAK

UVOD: *Zbrinjavanje hroničnih rana značajno se razvilo u protekloj deceniji, što od medicinskih sestara zahtijeva da budu posebno efikasne i u toku sa najnovijim preporukama dobre prakse.* ***CILJ:*** *Cilj ovog preglednog rada je prikaz inovativnih metoda u liječenju hroničnih rana, kao i značaj uloge medicinskih sestara tehničara u prevenciji hroničnih rana.* ***METODE RADA:*** *Sustavni pregled literature u naučnim bazama Pub Med i Google Scholar.* ***REZULTATI:*** *Nove tehnologije unapređuju tradicionalne mjere njege rana s ciljevima efikasne udobne njege rana kako bi se promovirao obnavljanje integriteta kože, a medicinske sestre moraju biti u toku sa novim tehnologijama. Odgovarajući i pravovremeni tretman pomaže u prevenciji opsežnih operacija i u konačnici sprječava potrebu za amputacijom. Stoga je pružanje optimalnih modaliteta liječenja od vitalnog značaja za maksimiziranje sposobnosti zacjeljivanja rane. Potreba za naprednom njegom rana u razvoju predstavlja uzbudljivu priliku za inovacije. Jedna od njih je i beskontaktna planimetrija koja uključuje snimanje slike pomoću kamere visoke rezolucije, a zatim postavljanje slike na računar koje analizira specijalizovani softver koji digitalno ocrtava ivicu rane. Prevencija rana ima važnu ulogu u suzbijanju demografskih trendova koji utiču na prevalencu rana, jer na taj način medicinske sestre utiču direktno na smanjenje troškova zdravstvene njege, te je njihova uloga od velikog značaja u ovom procesu.* ***ZAKLJUČAK:*** *Kvalitetna inovativna zdravstvena njega je od velike važnosti tokom liječenja ovakvog bolesnika, a medicinske sestre tehničari igraju ključnu ulogu u zbrinjavanju i prevenciji kako hroničnih rana, te je od velike važnosti da kroz svoje stručno obrazovanje prate inovacije i educiraju kako zdravstveni kadar tako i pacijente.* ***KLJUČNE RIJEČI:*** *hronične rane, inovacije, prevencija, medicinska sestra-tehničar.*

ABSTRACT

INTRODUCTION: *The management of chronic wounds has significantly advanced over the past decade, requiring nurses to be particularly efficient and up-to-date with the latest best practice recommendations.* ***THE AIM*** *of this review is to present innovative methods in the treatment of chronic wounds, as well as the importance of the role of nurse-technicians in the prevention of chronic wounds.* ***METHODS:*** *A systematic literature review was conducted using the scientific databases PubMed and Google Scholar.* ***RESULTS:*** *New technologies enhance traditional wound care measures with the goal of providing effective and comfortable wound care to promote the restoration of skin integrity, and nurses must stay updated with new technologies. Appropriate and timely treatment helps prevent extensive surgeries and ultimately avoids the need for amputation. Therefore, providing optimal treatment modalities is crucial for maximizing wound healing capacity. The need for advanced wound care presents an exciting opportunity for innovation. One such innovation is contactless planimetry, which involves capturing an image using a high-resolution camera and then uploading the image to a computer, where specialized software digitally outlines the wound's edge. The prevention of wounds plays an important role in countering demographic trends that influence wound prevalence, as nurses directly impact the reduction of healthcare costs, making their role highly significant in this process.* ***CONCLUSION:*** *High-quality, innovative healthcare is of great importance in the treatment of such patients, and nurse-technicians play a key role in the management and prevention of chronic wounds. It is therefore crucial that they keep up with innovations through their professional education and educate both healthcare staff and patients.* ***KEYWORDS:*** *chronic wounds, innovations, prevention, nurse-technician.*

INTRODUCITON

The founder of modern nursing was Florence Nightingale, who worked as a nurse, researcher, manager, reformer, and teacher. Through her work, she sought to highlight the complexity and multidimensional nature of the nursing profession (1,2). Nursing is a science centered on providing help and care. As a science, it contributes to the promotion, prevention, recovery, and rehabilitation of patient health, often in a holistic manner. Among its responsibilities and duties, ensuring nursing care without harm caused by negligence, carelessness, or thoughtlessness is crucial (3).

Patient safety is a global public health challenge, which is why the World Health Organization, in partnership with the International Classification for Patient Safety (ICPS), has characterized it as the act of avoiding, preventing, or improving harmful outcomes or injuries caused during the medical process of hospital care (4). The management of chronic wounds has significantly developed over the past decade, requiring nurses to be particularly efficient and up-to-date with the latest best practice recommendations. Thus, nurses are offered continuous education and a university degree aimed at developing wound care skills (5).

The aim of this review paper is to present innovative methods in the treatment of chronic wounds, as well as the important role of nurse-technicians in the prevention of chronic wounds.

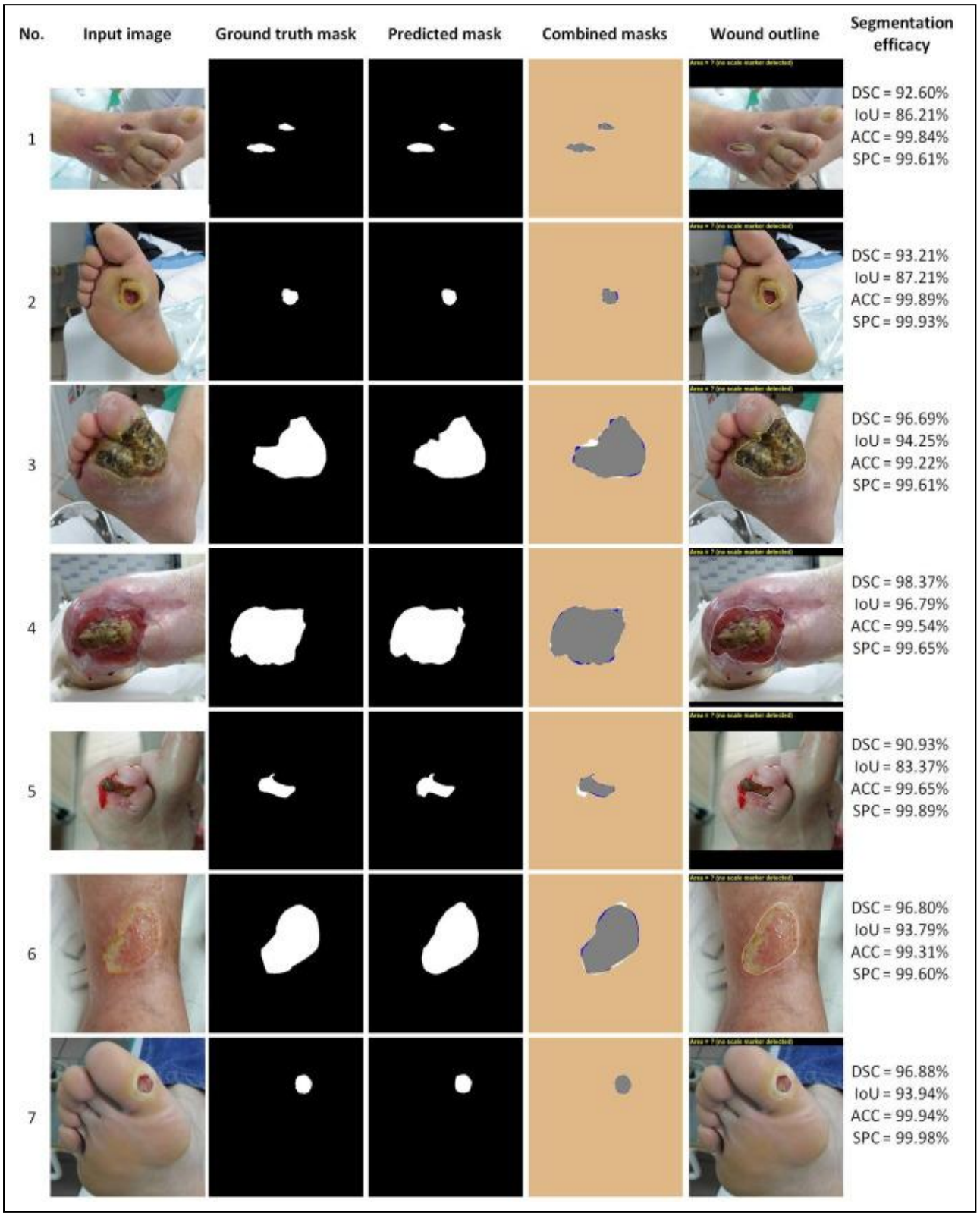
For the preparation of this review paper, a systematic literature review was used as a scientific method, focusing on literature from scientific databases PubMed and Google Scholar, not older than ten years. Ten scientific and professional articles were included in the analysis.

INNOVATIVE TREATMENT OF CHRONIC WOUNDS

If there is a field in which a nurse can largely practice with complete autonomy (from the preventive to the curative phase), it is indeed the field of chronic wounds. Therefore, her responsibility is fully engaged, and she can quickly become overwhelmed, torn between her ethical obligations on one side and the continuous evolution of wound care knowledge and the abundance and exponential increase of associated healthcare products on the other. Accurate wound assessment and knowledge of the implications of care with specific wound care measures (cleaning, debridement, and dressings) are essential for quality care. New technologies enhance traditional wound care measures with the goals of providing effective, comfortable wound care to promote skin integrity restoration, and nurses must stay updated with new technologies (6). Currently, wound care practices across the country treat chronic wounds of many different etiologies, including (but not limited to) ischemia, pressure, trauma, coagulopathies, infections, diabetes, vascular and autoimmune diseases. Appropriate and timely treatment helps prevent extensive surgeries and ultimately reduces the need for amputation. Therefore, providing optimal treatment modalities is crucial for maximizing wound healing capabilities. Successful wound care treatment for patients requires a holistic and systematic approach, which involves considering the whole patient, not just the wound. The healthcare team, in which the nurse plays the most significant role, must understand and address the underlying physiological aspects of the patient that may affect wound healing, such as inadequate nutrition or endocrine, cardiac, and pulmonary processes. These complex patients deserve the latest evidence-based treatments for optimal outcomes. The need for advanced wound care development represents an exciting opportunity for innovation. In the future, it will not be uncommon for healthcare providers in wound centers to use contactless planimetry for precise wound measurement and assessment to determine whether it is healing. Contactless planimetry involves capturing an image with a high-resolution camera and then processing the image on a computer. This image is analyzed by specialized software that digitally outlines the wound edges. Some software can also measure depth and perform volume assessments (7).

Another interesting innovation is the use of modern machine learning methods and software engineering to create a predictive model for delayed wound healing. This model utilizes information collected during routine care in outpatient wound care centers across the country and aggregates the data into a wound registry. This will enable the wound care team to guide treatment and clinical decision-making based on comprehensive computer-generated data, rather than solely on personal experience. Another new therapy being used to promote healing in preclinical and clinical studies is the application of mesenchymal stem cells in spray form, delivered by a high-pressure spray device. This spray gun can disperse autologous stem cells over large wound areas typically caused by burns, and it is painless and does not cause scarring (7).

Figure 1. Digital Planimetry (8



PREVENTION OF CHRONIC WOUNDS

One way to reduce the costs of wound care in the future is to decrease the number of wounds that need treatment. This means that wound prevention plays an important role in addressing demographic trends that affect wound prevalence. For example, below-knee compression stockings are recommended to prevent the recurrence of venous leg ulcers (VLUs) in patients with healed ulcers, and regular foot assessments are effective in preventing diabetic foot ulcers (DFUs), along with other interventions such as optimizing glycemic control and smoking cessation (9).

When discussing wound prevention, the most important is the prevention of pressure ulcers in acute care, and this area is indeed probably the most widely studied and given the most attention. Pressure ulcers have a profound negative impact on many aspects of a person's quality of life, and although pressure ulcers are not a new phenomenon, they continue to represent a significant health problem due to the aging population. Pressure ulcers also pose a significant burden on healthcare systems, with one report estimating that treating pressure ulcers costs 11 billion US dollars annually. Recently published international guidelines for the prevention and treatment of pressure ulcers have shown that several key factors are important for effective prevention:

- Risk assessment.
- Skin and tissue assessment.
- Preventive skin care.
- The use of new therapies such as microclimate control, prophylactic dressings, fabrics and textiles, and electrical muscle stimulation.
- Good nutrition.
- Repositioning and early mobilization.
- Appropriate use of support surfaces.

A thorough and comprehensive risk assessment is a vital part of prevention, and several assessment tools have been developed that, when used in combination with clinical judgment and experience, can help identify the level of risk for individual patients. Since there are several potential risk factors for pressure injury, there are a variety of different preventive approaches that can be used (and combined) in a prevention protocol. Appropriate support surfaces should be used, and the patient's skin should be regularly examined along with an individualized repositioning program. Incontinence, skin moisture, nutrition, and hydration must be adequately maintained in collaboration with appropriate healthcare professionals. Dressing selection is important: dressings must have the ability to redistribute pressure, reduce shear and friction, and effectively manage temperature and moisture on the skin's surface. Where the surrounding skin is fragile, as is often the case with patients at risk of developing pressure ulcers, dressings with a soft silicone border may be appropriate (9).

Much has been done to improve and implement pressure ulcer prevention measures across Europe. In some countries, economic incentives have been introduced to reduce the incidence of pressure ulcers, along with financial penalties for increased incidence. Awareness has increased, and practice has improved, although the debate continues on the proportion of pressure ulcers that could have been avoided (10).

CONCLUSION

Chronic wounds represent a health problem that has devastating consequences for patients and contribute to significant costs within healthcare systems and society. The prevention and treatment of chronic wounds involve many strategies, including the use of various wound dressings, bandages, antimicrobial agents, footwear, physical therapies, and educational strategies. High-quality, innovative healthcare is of great importance in the treatment of such patients, and nurse-technicians play a key role in the management and prevention of chronic wounds. Therefore, it is crucial that they stay updated on innovations through their professional education and educate both healthcare staff and patients.

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ETHICAL ASPECTS OF ASSESSMENT OF HEALTHCARE SERVICE QUALITY

ETIČKI ASPEKTI OCJENJIVANJA KVALITETE ZDRAVSTVENIH USLUGA

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SAŽETAK

CILJ ISTRAŽIVANJA: *Cilj je prikazati poštivanje prava pacijenata kroz naš zdravstveni sistem, kako bi se prikazalo na koji način se oni ostvaruju i u kojoj mjeri se oni krše, te u kojoj mjeri su prava pacijenata implementirana kod pacijenata Kantonalne bolnice Zenica i ambulantama Doma zdravlja Zenica.* ***ISPITANICI I METODE:*** *Ovo je presiječna deskriptivna studija analizira poštivanje prava pacijenta i ispunjavanje tih istih prava kroz zdravstveni sistem na području Zeničko-dobojskog kantona, a institucije u fokusu su Kantonalna bolnica Zenica i ambulante primarne zdravstvene njege grada Zenica, ispitanike dakle čine pacijenti kojima se pružila zdravstvena njega u periodu od decembra 2019 do juna 2020.* ***REZULTATI ISTRAŽIVANJA:*** *Prema Svjetskoj zdravstvenoj organizaciji, zadovoljstvo pacijenata pruženom zdravstvenom uslugom jedan je od pet faktora kvaliteta pružanja usluga. Neki istraživači su također identifikovali ovaj faktor kao jednu od najvažnijih determinanti kvaliteta zdravstvene zaštite. Stoga je ovo istraživanja imalo za cilj prvenstveno da procijeni proces prijema i obrade pacijenta pri prijemu, informirani pristanak i informacije o daljim tretmanima kako bi se poboljšalo viđenje važnosti ovih faktora na zadovoljstvo pacijenata u istraživanim ustanovama. Analiza podataka je otkrila da je ukupna stopa zadovoljstva pacijenata pri prijemu i obradi pacijenta bila prosječna.*

Informirani pristanak i informacije o daljim procedurama, tretmanima su dobivali na različite načine, od strane raznih zdravstvenih radnika, uz korištenje različitih oblika pristanka. Neophodan je upornost da se otkrije praktična stvarnost informiranog pristanka kako bi se poboljšali etički i pravni standardi. Rezultatima se također dokazuje da etički izazovi za dobijanje informiranog pristanka uključuju slabu svijest pacijenata o svojim pravima, nemogućnost pružanja adekvatnih informacija pacijentima, odsustvo uvažavanja nivoa obrazovanja pacijenata, nejasnu definiciju o tome ko je odgovoran za dobivanje informiranog pristanka od pacijenata, vremenska ograničenja, te korištenje nejasnog jezika i medicinskog žargona. Izgradnja etičkog okvira može voditi medicinsko osoblje u suočavanju s etičkim izazovima koji se odnose na dobivanje informiranog pristanka.

Dostupnost, profesionalnost i posvećenost zdravstvenih radnika - ljekara i medicinskih sestara ima srednje jaku korelaciju sa zadovoljstvom i poštivanjem prava pacijenata. Analizom korelacije odnosa ljekar – pacijent pokazalo se da postoji jaka negativna korelacija sa informiranošću pacijenata tokom pregleda (r= -0,251) ili o negativnim ishodima liječenja koji iznosi r= -0,257 ili na kraju o dobijanju informacija o bolesti ili liječenju određene bolesti (r= -0,283). Stoga postoji potreba za dodatnim obrazovanjem i obukom koja promiče etičko znanje i etičko promišljanje fokusirajući se na osnovne vrijednosti njege i njege povjerenja i autonomije, posebno u situacijama koje utiču na sposobnost donošenja odluka pacijenta.

Sveukupnim okruženje u zdravstvenim ustanovama u kojima je pružena zdravstvena njega pacijenti su prosječno zadovoljni, te ostvarena je pozitivna korelacija sa edukaciji o bolesti r=0,785, o osjećaju sigurnosti r=0,776, da su informacije bile prilagođene pacijentu r=0,759.

Kada se istraživao stav pacijenata prema koruptivnim aktivnostima, analizom koji dio populacije je izložen koruptivnim aktivnostima, došlo se do podatka da su to najčešće bile žene njih 10,1%. Iako za jedan posto više od muškaraca u cjelokupnoj ispitivanoj skupini ali i kroz praksu smatra se da je to dosta učestalije nego što pacijenti žele da priznaju, jer misle da će biti stigmatizirani ili da će to uslovljavati kvalitet potrebne zdravstvene njege. ***ZAKLJUČAK:*** *Rezultatima istraživanja dokazalo se da prava pacijenata ipak nisu u potpunosti ispoštovana. Utvrđeno je da zdravstveni sistem ne posvećuje dovoljno pažnje informisanju i provođenju prava pacijenata i drugih korisnika zdravstvene njege u potpunosti. K****LJUČNE RIJEČI:*** *etika, prava, pacijenti/bolesnici, medicinske sestre*

ABSTRACT

RESEARCH OBJECTIVE: *The objective is to demonstrate respect for the patients' rights through our healthcare system to show in what way are they realized and in what measure are violated, in what measure the patients right are implemented in patients of Zenica Cantonal hospital and dispensaries of Zenica Health center.* ***RESPONDENTS AND METHODS:*** *This paper is cross-sectional, descriptive study which analyses the respect for the patients' rights and fulfilment of those rights through healthcare system on the territory of Zenica-Doboj canton, in focus of Zenica Cantonal hospital and dispensaries of primary healthcare of Zenica city. The respondents are the patients who received healthcare in the period from December 2019 to June 2020.* ***RESEARCH RESULTS:*** *According to the World Health Organization, patient satisfaction with the provided healthcare service is one of the five factors of service quality. Some researchers have also identified this factor as one of the most important determinants of the quality of healthcare. Therefore, this research aimed primarily to evaluate the process of admission and treatment of the patient at admission, informed consent and information about further treatments to improve the perception of the importance of these factors on patient satisfaction in the researched institutions. Data analysis revealed that the overall patient satisfaction rate at admission and patient processing was average.*

Informed consent and information about further procedures and treatments were obtained in different ways, by different healthcare workers who used different forms of consent. Persistence is needed to uncover the practical realities of informed consent to improve ethical and legal standards. The results also prove that ethical challenges in obtaining informed consent include patients' poor knowledge of their rights, inability to provide adequate information to patients, lack of respect for patients' level of education, unclear definition of who is responsible for obtaining informed consent from patients, time constraints, and the use of vague language and medical jargon. Building an ethical framework can support medical staff in addressing ethical challenges related to obtaining informed consent.

The availability, professionalism and commitment of medical staff - doctors and nurses is moderately strongly related to satisfaction and respect for patients' rights. An analysis of the correlation between doctor and patient has demonstrated there is a strong negative correlation with informing the patients during the examination (r= -0.251) or about the negative outcomes of the treatment, (r= -0.257), or finally with informing patients about the disease or the treatment of a specific disease (r= -0.283). Therefore, there is a need for additional education and training that promotes ethical knowledge and reflection by focusing on the core values of care and trust and autonomy, especially in situations that involve the patient's decision-making capacity.

Patients are generally satisfied with the overall environment in healthcare institutions where healthcare is provided. A positive correlation was achieved with information about the disease r=0.785, the feeling of safety r=0.776, and the fact that the information was adapted to the patient r=0.759.

When the patients' attitudes towards corrupt activities were examined, the analysis of which part of the population is exposed to corrupt activities showed that 10.1% of the patients were mostly women. While this is one percent more than men in the entire examined group, it is also assumed by the practice, that this is much more common than patients want to admit, because they think they are stigmatized or that it affects the quality of the necessary health care.

Conclusion: *The research results proved that patients' rights are not completely respected. It was established that the healthcare system does not pay enough attention to informing and enforcing the rights of patients and other users of healthcare in full.* ***KEY WORDS:*** *ethics, rights, patients/sick people, nurses*

INTRODUCTION

The concept of patient responsibilities and obligations, which emerged in the early 1970s in Western European countries (especially the Nordic countries) and the USA, has seen impressive momentum in the last three decades. The first phase in the development of that concept, covered by "early" research studies, is focused on the theoretical explanation of patients' rights as part of human rights, but with an emphasis on the social aspects of healthcare in which the right to healthcare dominates. The second phase of the development of the patients' rights concept is characterized by several trends:

a) strengthening of interest in the issue of patients' rights from both the general public, patient and consumer associations, health professionals and politicians, as well as the academic community, which all confirmed by numerous articles, studies and monographs[4];
b) promotion of new patients' rights (e.g. protection of personal data in medical data bases, right to second opinion etc.)[5];
c) setting international legal standards in the sphere of protection and promotion of patients' rights (Declaration on the Promotion of Patients' Rights in Europe, Ljubljana Declaration on Healthcare Reform, Convention on Biomedicine and Human Rights etc.),
d) regulation of patients' rights in national frameworks through special laws (Finland 1992, Netherlands 1994, Greece, Portugal 1997, Denmark 1998, Belgium and France 2002, etc.), as part of general law on heathcare up to legal regulations that include special groups of patients[6];
e) following the implementation of legislative on patients' rights with the prepositions for improving the patients' position.[7]

In 2010 Bosnia and Herzegovina also joined the trend of legalizing patients' rights by by passing the Law on the protection of patients' rights („Sl. novine FBiH“, No 40/10). However, patients' right do not exist in a vacuum (Patients’ rights in Europe today, The European Ombudsman Speech, Harvard Medical International Conference, Chalandri-Athens, 2005). The question that arises is: how to implement this Law and other regulations in real life.

RESEARCH SUBJECT AND PROBLEM

Subject of this paper is to determine and prove the consularity of the provided healthcare through the quality of the health service from the ethical aspect of the patient's rights.

WORKING AND AUXILIARY HYPOTHESIS

The main hypothesis of this paper claims that patients who are users of the healthcare services of the Zenica Cantonal hospital and the Zenica Health center are satisfied with the health services provided.
As a basis for the implementation of the research, three research hypotheses were defined, and they will be confirmed by the research:

Hypothesis 1:
Patients are informed about their rights, obligations and responsibilities within the scope of providing health services.

Hypothesis 2:

All information about the disease and treatment was available to patients during hospitalization.
Hypothesis 3:

Patients express satisfaction with the attitude of the healthcare staff during the treatment.
Null hypothesis claims that patients who are users of the health services of Zenica cantonal hospital and Zenica Health center are not satisfied with the provided health services.

RESEARCH PURPOSE AND OBJECTIVES

Research objectives of this paper are:

- Describe patients' rights,
- Show the patients' rights through basic human rights,
- Show the patients' rights through the prism of users,
- Show whether patient's rights as basic human rights are the luxury,
- Present the basic patients' rights through legislation,
- Show the patients' obligations and responsibilities,
- Describe the responsibilities of nurses toward the patients through the aspect of ethics and what are the ethical principles in the practice of enforcing patients' rights,
- Show the concept of human rights through the healthcare system by presenting valid laws on human rights at the international level, comparing human rights and patient rights and their implementation in patient safety,
- Research and empirically present enforcement of patients' rights upon admission to the outpatient clinic,
- Research and empirically present the respect of the patient's rights upon admission to the hospital ward,
- Present the patient's level of information in the process of providing health care,

- Research and present the relationship of the doctor and nurse towards the patient and the way this affects the implementation of the patient's rights,
- Investigate whether all segments of the healthcare process are in accordance with patients' rights,
- Investigate and present the results of the investigation of corrupt practices that are represented in the mentioned healthcare institutions.

ASSESSMENT OF PREVIOUS RESEARCH

There is a large amount of research related to ethics and patients' rights. In our country and region, most of the research is of a theoretical descriptive form, while a small part of them does a quantitative analysis, mostly only of the ethical attitude. Unlike domestic authors, among foreign authors this topic is relatively often researched. One of the papers that should be mentioned is a paper that investigates the connection between ethics in general and human rights respect among nurses in Iran written by Bagherinia et al, indicating that knowing patients' rights greatly improves healthcare and that nurses and midwives very well practice ethics and patients' rights in practice. That further leads to the research that needs to be mentioned, the research of Mortazovi et al[8] which proved that respecting patients' rights by nurses and doctors is not that successful and that patients in Iran are not satisfied with the provided care, respect of rights and ethics implementation. Papers prove that dedication to professional ethics and the awareness of patients' rights can make an impact on professional practice of healthcare workers and that these elements in providing the healthcare greatly impact patients' satisfaction. In this regard, since there are no research papers that can determine the respect of patients' rights in the Zenica Cantonal hospital and the Zenica Health center, this research could contribute to a clearer view of the shortcomings in the respect of rights through ethics in these health institutions.

SCIENTIFIC METHODS

This paper is cross-sectional descriptive study that analyses respecting patients' rights and implementing these rights through the healthcare system on the territory of Zenica-Doboj canton, with the focus on Zenica Cantonal hospital and dispensaries of primary healthcare of Zenica city. the Cohort therefore consists of patients who received healthcare treatment during the period from December 2019 to June 2020. In order to prove the hypothesis, a descriptive analysis of the data obtained by the survey questionnaire is carried out in SPSS and Excel, and Spearman's correlation coefficient is used to show the way of exercising the patient's rights in healthcare for the patients of the Zenica Cantonal hospital and the dispensaries of the Zenica Health center.

STUDY STRUCTURE

This study consists of seven basic parts.
The first chapter is an introduction to the work. In this part, the purpose and subject of the research, the research objectives, hypotheses are defined, and the review of all scientific methods used in the work and the structure of the work are presented.
In the second part, patients' rights are defined, human rights are presented as part of patients' rights, and then as user's rights. It is analysed whether human rights are actually a luxury, and what rights patients have that are realized by the law. At the end of this part, the duties and responsibilities of the patient are analysed.
In the third part, the nurse's responsibility towards the patient is presented from an ethical aspect. The ethical code of nurses is presented, which guides them in ensuring the patients' rights. In the fourth part the concept of human rights is presented through a series of worldwide laws, and certain aspects of violation and realization of patients' rights as human rights are analysed.
The fifth part of the study is based on the analysis of the data obtained in the practice, examining a series of patient rights through a questionnaire that confirms the hypotheses.
The sixth part discusses the data obtained by analysing the data and the results of the questionnaire.
In the seventh part, final considerations are presented and it is explained whether the hypotheses have been confirmed.

RESEARCH RESULTS

The research included 100 patients, who fulfilled the survey questionnaire attached to the examination, and who were treated in Zenica Cantonal hospital or one of dispensaries of Health center Zenica in in the period of six months from December 2019 to June 2020. Data analysis was descriptive, and the collected data were analysed in the SPSS statistical program. Through the analysis, a correlation was made of certain factors that were taken into account in the survey.

BASIC DATA ABOUT RESPONDENTS

Analysing the professional qualifications of the respondents and comparing their gender and age groups, it was concluded that the majority of patients took part in the survey were with a secondary school degree (51%). The survey included more female patients, which is shown in table 7 and graph 6. A strong correlation between gender and professional education was achieved (r= 0.298), where the major group that fulfilled the questionnaire were women with completed secondary education.

Table 4. Comparative presentation of gender, age and professional qualifications

Respondents' gender			Respondents' professional qualification				Total
			Primary school qualification	Secondary school qualification	Post-secondary school qualification	University qualification	
male	Age group	< 20 years	2	2	0	0	**4**
		21 - 40 years	1	20	3	0	**24**
		41-60 years	1	6	8	3	**18**
		> 61 years	2	0	1	0	**3**
	Total		**6**	**28**	**12**	**3**	**49**
female	Age group	< 20 years	2	1	0	1	**4**
		21 - 40 years	1	15	5	3	**24**
		41-60 years	2	6	10	3	**21**
		> 61 years	0	1	1	0	**2**
	Total		**5**	**23**	**16**	**7**	**51**
Total	Age group	< 20 years	4	3	0	1	**8**
		21 - 40 years	2	35	8	3	**48**
		41-60 years	3	12	18	6	**39**
		> 61 years	2	1	2	0	**5**
	Total		**11**	**51**	**28**	**10**	**100**

PROVIDING HEALTHCARE SERVICE AT ADMISSION

The analysis of the achieved correlation for the following variables, such as the waiting time for the scheduled examination, led to the result that there is a strong positive correlation that amounts to r=0.846, where patients do not wait long if they are scheduled for an examination. When it comes to fulfilling the schedule, there is a medium strong correlation of r= -0.311, where difficulties in scheduling can be seen.

A positive correlation was also achieved with questions related to the patient's information upon admission, which is a medium strong correlation of r= 0.300, where it is proven that it is already an established practice to inform the patients why they are being hospitalized, which department they are going to, attach an informed consent form, so that they are relatively clearly acquainted with their possibilities and obligations.

Table 8. Waiting period for scheduled examination

Respondents' gender			After coming for an examination, the respondent waited for					Total
			5-10 min.	10-20 min.	20-40 min.	40-90 min.	90-180 min.	
male	Age group	< 20 years	3	1	0		0	**4**
		21 - 40 years	8	12	4		0	**24**
		41-60 years	3	8	6		1	**18**
		> 61 years	1	1	1		0	**3**
	Total		**15**	**22**	**11**		**1**	**49**
female	Age group	< 20 years	0	2	2	0	0	**4**
		21 - 40 years	5	12	4	2	1	**24**
		41-60 years	6	5	10	0	0	**21**
		> 61 years	1	0	1	0	0	**2**
	Total		**12**	**19**	**17**	**2**	**1**	**51**
Total	Age group	< 20 years	3	3	2	0	0	**8**
		21 - 40 years	13	24	8	2	1	**48**
		41-60 years	9	13	16	0	1	**39**
		> 61 years	2	1	2	0	0	**5**
	Total		**27**	**41**	**28**	**2**	**2**	**100**

RESPECTING THE RIGHTS OF PATIENTS AT ADMISSION TO THE HOSPITAL

In this section, the focus is on data related to the conditions and access of healthcare professionals to patients in these conditions. Primarily, it was found that in 50% of cases, the informed consent form was given to the patients, with the majority of forms going to the patients themselves, while in a very small percentage the form was given to those accompanying the patient (parents 49%, and guardians who have a legal basis for requesting the form - 17%).

When it comes to the type of respondents, i.e. healthcare users, 49% of patients are not informed about adverse events, 55% of parents and 69% of respondents, clearly showing that the majority of the insistence on patients' rights comes from the people who take care of the patients, and not from the patients themselves, which is relative and reasonable. In terms of informing the patients of their rights on admission to the ward, which is the duty of every nurse when a new patient arrives, 37% of male respondents and 51% of female respondents said they were informed of this. From my experience as a nurse, I can conclude that although the rights of all patients are to be respected, there is great resistance, weaker communication, and greater fear and disinterest among the male population.

This data can confirm the following facts: when asked if they have exercised their right to object, 49% of female patients have done it, while 42% of male respondents have not, and 32% of male respondents have not answered this question at all. It is believed that many male patients are not interested in their rights and do not use them, as they do not inform themselves about them or use them, and show that they are not convinced that they will be respected even if they ask about the rights at all. When it comes to the type of respondents, the patients, 40% of them, claim that they mostly demanded their right to object, same as the parents, while the devastating data is that about 30% of all types of patients had no answer, which shows us that there is doubt in the exercise of these rights of the patients. When it comes to the type of respondents, 40% of claim that were the most demanding in asking for their right to object, just like parents, while the devastating data shows that about 30% of all types of patients did not give an answer, which shows us that there are doubts about the exercise of these rights of patients.

Table 14. The attitude on patients' rights mentioned on admission to the ward

Respondents' gender			Were you informed about the patients' rights on admission to the ward			Total
			YES	NO	NO ANSWER	
male	Age group	< 20 years	2	2		**4**
		21 - 40 years	7	17		**24**
		41-60 years	7	11		**18**
		> 61 years	2	1		**3**
	Total		**18**	**31**		**49**
female	Age group	<20 years	4	0	0	**4**
		21 - 40 years	12	12	0	**24**
		41-60 years	9	9	3	**21**
		> 61 years	1	1	0	**2**
	Total		**26**	**22**	**3**	**51**
Total	Age group	< 20 years	6	2	0	**8**
		21 - 40 years	19	29	0	**48**
		41-60 years	16	20	3	**39**
		> 61 years	3	2	0	**5**
	Total		**44**	**53**	**3**	**100**

PATIENTS' AWARENESS

This part is dedicated to patient's satisfaction, which was analysed through a scale of answers (Linkert scale) to seven questions. Analysing the data on the claim that the doctor makes enough time for talking to the patient, 34.7% of male respondents gave positive answers, while the majority of female respondents answered that they neither agree nor disagree with this claim.

Table 16. Conversation with the doctor

Respondents' gender			The doctor made enough time to talk to me					Total
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
male	Data given by	patient	5	3	3	3	9	**23**
		parent	2	0	2	2	2	**8**
		guardian	2	0	8	2	6	**18**
	Total		**9**	**3**	**13**	**7**	**17**	**49**
female	Data given by	patient	4	1	13	8	8	**34**
		parent	5	1	0	2	4	**12**
		guardian	0	0	2	1	2	**5**
	Total		**9**	**2**	**15**	**11**	**14**	**51**
Total	Data given by	patient	9	4	16	11	17	**57**
		parent	7	1	2	4	6	**20**
		guardian	2	0	10	3	8	**23**
	Total		**18**	**5**	**28**	**18**	**31**	**100**

THE RELATIONSHIP OF DOCTORS AND NURSES WITH THE PATIENT

Answers to the question about the relationship between doctors, nurses and patients were relatively vague. The question whether the doctor treated the patient kindly, was answered by the majority of patients that they neither agree nor disagree. This response is most common in female patients (35.3%). According to the type of healthcare users, patients themselves (33.3%) mostly answered with neither agree nor disagree, while parents (30.0%) and guardians (30.4%) chose the answer that they totally agree.

Table 21. Doctors' kindness

Respondents' gender			Doctor treated me kindly					Total
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
male	Data given by	patient	2	4	4	6	7	**23**
		parent	2	0	2	2	2	**8**
		guardian	2	2	4	5	5	**18**
	Total		**6**	**6**	**10**	**13**	**14**	**49**
female	Data given by	patient	4	1	15	8	6	**34**
		parent	5	0	1	2	4	**12**
		guardian	0	0	2	1	2	**5**
	Total		**9**	**1**	**18**	**11**	**12**	**51**
Total	Data given by	patient	6	5	19	14	13	**57**
		parent	7	0	3	4	6	**20**
		guardian	2	2	6	6	7	**23**
	Total		**15**	**7**	**28**	**24**	**26**	**100**

Nurses have higher percentage of better ratings where, when asked if the nurses were kind, 43.9% of patients answered that they agree with this statement, as well as 35.0% of parents. When asked if the nurse showed care and understanding, 40.0% of patients gave positive answer, parents and guardians responded the same in similar percentages.

Table 24. Nurses' kindness

Respondents' gender			Nurse treated me kindly					Total
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
male	Data given by	patient	2	3	2	12	4	**23**
		parent	1	0	1	4	2	**8**
		guardian	1	2	6	5	4	**18**
	Total		**4**	**5**	**9**	**21**	**10**	**49**
female	Data given by	patient	4	3	9	13	5	**34**
		parent	2	1	4	3	2	**12**
		guardian	0	0	2	1	2	**5**
	Total		**6**	**4**	**15**	**17**	**9**	**51**
Total	Data given by	patient	6	6	11	25	9	**57**
		parent	3	1	5	7	4	**20**
		guardian	1	2	8	6	6	**23**
	Total		**10**	**9**	**24**	**38**	**19**	**100**

HEALTHCARE PROCESS THROUGH THE PATIENTS' RIGHTS

In this chapter interesting information was obtained. When it comes to satisfaction with the provided healthcare, questions related to this topic got a positive feedback. Primarily, satisfaction with healthcare was analysed within expectation, and most patients gave positive answer, 35.1%.

Table 27. Providing healthcare

Respondents' gender			Provided healthcare was within my expectations					Total
			Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
male	Data given by	patient	3	3	5	9	3	23
		parent	0	1	3	3	1	8
		guardian	1	3	5	9	0	18
	Total		4	7	13	21	4	49
female	Data given by	patient	3	3	15	11	2	34
		parent	2	3	1	4	2	12
		guardian	0	1	1	2	1	5
	Total		5	7	17	17	5	51
Total	Data given by	patient	6	6	20	20	5	57
		parent	2	4	4	7	3	20
		guardian	1	4	6	11	1	23
	Total		9	14	30	38	9	100

CORRUPT ACTIVITIES

On this sensitive topic, we have come across various information that could be partially predicted according to previous statistical analyses. It is important to emphasize that this violation of basic human rights and the right to health is deeply rooted in the healthcare system and in the general opinion of the population, because when you talk to patients about it, they believe that „it is necessary, it should be done, and if it is not done, they will not receive care or treatment".

When it comes to what portion of the patient population is exposed to corrupt activities, 10.1% of them were women. While this is one percent more than the percentage of men in the entire examined group, practice has shown that this is much more common than patients want to admit because they think they are being stigmatized or that it affects the quality of the healthcare they need.

Table 32. Cross tabular analysis of respondents' gender and experience with corrupt activities

			Have you ever experienced someone asking for a bribe in the hospital/dispensary?		Total
			YES	NO	
Respondents' gender	male	Number	9	39	48
		%	9.1%	39.4%	48.5%
	female	Number	10	41	51
		%	10.1%	41.4%	51.5%
Total		Number	19	80	99
		%	19.2%	80.8%	100.0%

According to the type of respondent, the patients most affected by corrupt activities are to be found in the 41-60 age group, 11.1% of respondents, which is unfortunately the most vulnerable part of the population. It should be noted that this age group, when prevention is possible through regular check-ups, appropriate diagnostics and treatment to prevent and possibly diagnose various chronic non-communicable diseases, is the most exposed to this form of violation of human rights and the right to healthcare.

Table 33. Experience with corrupt activities (by type of respondent)

			Have you experienced it in the hospital/dispensary?		Total
			YES	NO	
Data given by	patient	Number	11	45	56
		%	11.1%	45.5%	56.6%
	parent	Number	3	17	20
		%	3.0%	17.2%	20.2%
	guardian	Number	5	18	23
		%	5.1%	18.2%	23.2%
Total		Number	19	80	99
		%	19.2%	80.8%	100.0%

CONCLUSION

This paper is based on the main hypothesis that states that the patients who are users of healthcare services in Zenica Cantonal hospital and Zenica Health center are satisfied with the provided services.
Patients are partially satisfied with the work of healthcare staff. The majority of patients, especially women, fulfil their rights with their perseverance. During hospitalisation, they hesitate to fulfil their rights even though they see that the same right is being violated, which is more common among male patients. The ethical implementation of the patient's rights is conditioned by the present objectification of patients, lack of time and lack of commitment.

It is necessary to explain a few facts that have been established based on research. They are presented based on the patients' rights mentioned above:

1. Availability of healthcare, including the right to emergency medical assistance and respect for the patient's time

The availability of healthcare is reflected in the provision of healthcare services according to their condition, needs and legal basis, with emergencies, treated as such, according to their nature. Scheduling examinations is relatively feasible, while the practice of triage for emergency examinations is well established. The health system responds very well to these needs, and almost every patient who needed an urgent examination was received immediately, and did not have to wait even 10 minutes. In this question the most attention was paid to the parents and guardians of persons who could not claim their rights.

2. The information

The problem becomes apparent when analysing data on whether patients received all the necessary information to facilitate the appointment with the doctor, 54% of patients responded that this was not the case. The right to information is not fully fulfilled when it comes to patients of Zenica Cantonal hospital and Zenica Health center. When it comes to informing patients about their rights on admission to the ward, 53% of the patients were not informed about their basic rights, which is mandatory at least in case of hospital treatment. The right to information is not fulfilled to the end when it comes to patients of these healthcare institutions. The rights and obligations of the patient are provided in accordance with the legislation and procedures of the institution where the patient's healthcare is provided. They should be accessible in various forms, to make them more accessible and customised to the patient himself.

3. The information and participation in the treatment

Unfortunately, and due to the fact that the practice of attaching an informed consent form is relatively unsettled and new, when the attitudes of 55% of the examined patients were analysed, it was not attached, especially to male patients (65%), who are assumed to be stigmatized about what happens after signing the form. The situation was similar with information about adverse events during the treatment, where 55% of patients stated that they were not informed, and still dominant in the male population, 62% of them. The patient has the right to decide on the implementation of any medical measure. Consent to certain interventions during treatment requires that they are adequately informed of all issues

related to their condition and therefore the treatment. It is suggested that a written notification of further treatment be introduced into practice.

4. Self-determination and consent, including the protection of the rights of the incapacitated patient

When asked about the informed consent form and adverse event information, 55% of parents stated that they did not receive information on either question, and the devastating fact is that 82% of guardians did not receive the form, and 67% of guardians were not informed about the side effects of the treatment.

5. Confidentiality of information, privacy and data secrecy

When asked about privacy and confidentiality, 39% of patients agreed with the statement that their privacy is guaranteed, and that the patient feels equally safe. All personal information is only shared with the healthcare professional when necessary for the treatment and to the extent necessary.

6. Personal dignity

In this right, nurses are ahead of doctors, 38% of respondents stated that they believe that nurses act politely and reasonably, and show care. The most common response to the same questions related to the doctors was that patients neither agree nor disagree with this statement, in 28% of cases.

7. Preventive measures and information to maintain health

With regard to this patient right, one third of the patients answered that they had enough time to talk to the doctor, that the healthcare staff helped them to express their complaints, that any problems that could happen during the treatment were explained to them, and that every healthcare worker tried to provide all necessary information about the disease and the treatment of the disease. Respect for rights is also threatened from this aspect, because when the access to the doctor by phone call was analysed, it was found that in 82% of cases they could not talk directly to their doctor to get additional information about their treatment.

8. Complaints

It is an interesting fact that in the group of patients surveyed, who were reported to be dissatisfied with the healthcare provided, only 36% of them used the right to complain, and 30% of them did not want to answer this question.

Hypothesis 1

Patients were informed about their rights, obligations and responsibilities when using healthcare services.
Patients' rights, obligations and responsibilities are regulated by the Law on the rights, obligations and responsibilities of patients („Službene novine F BiH“, No. 40/10). Healthcare for patients should be based on a partnership between healthcare workers, as providers, and patients, as recipients of services. Ethical values are crucial for all healthcare workers. Ethical behaviour is the foundation for nurses, who deal with ethical issues on a daily basis. Ethical dilemmas arise when nurses care for patients. These dilemmas can sometimes conflict with nurse's ethical code or their ethical values . Nurses are advocates for patients and must find a balance when caring for patients.

Hypothesis 2

During the hospitalisation patients were fully informed about their illness and treatment
This auxiliary hypothesis reveals certain shortcomings in the healthcare system, because due to the work overloaded and shortage of healthcare staff in all healthcare facilities, they ignore the patients’ needs for information, do not explain the entire process of healthcare, do not include certain informed consent forms, especially an information form about the undesirable consequences of the treatment. The patient should always be the first and foremost concern. The healthcare worker must recognize patient need to have their individual views included in care and treatment practice. Any conflict of interest, whether caused by external factors, or the habits or ideals of the healthcare professionals that conflict with the healthcare professional's actions, should be separated and resolved so that they do not interfere with the care and treatment of patients. Collaboration with internal and external teams is essential to ensure the best care for the patient. It is important to be aware of professional boundaries and how they affect the outcome of patient care and treatment.

Hypothesis 3

Patients express satisfaction with the attitude of the healthcare staff during the treatment.
Research has shown that patients are partially satisfied with the attitude of the staff during the treatment. It is necessary to encourage patients to contribute to the improvement of the healthcare system, in the best possible way, namely by establishing their rights as the basis for the work of every healthcare professional. Although it can be said that patients have the right to quality healthcare, poor quality healthcare is not recognized as a violation of human rights at the state level. In cases of simple negligence the individual is always

portrayed as the culprit, not as a problem in the system. In order to solve this type of violation of human rights and the rights of the patient as best as possible, it is necessary to address these problems systematically. The state should take systemic measures to address the problem, such as changing policies or regulations, providing appropriate training, monitoring services, establishing avenues for appeal and legal remedies, and taking disciplinary action where warranted. In contrast, human rights do not end with providing quality healthcare. Patients can receive superior medical care and treatment without their consent. Therefore, human rights in healthcare for patients aim to move away from the biomedical model, which focuses only on the type and quality of the healthcare service, and towards the direction where patients are active participants in their healthcare and where their fundamental dignity and freedom must be respected, protected, and promoted.

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INFLUENCE OF SOCIO-ECONOMIC STATUS ON HEALTH INEQUALITY

UTJECAJ SOCIOEKONOMSKOG STATUSA NA ZDRAVSTVENU NEJEDNAKOST

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SAŽETAK

Rad istražuje složenu povezanost između socio-ekonomskog položaja pojedinaca i zdravstvenih nejednakosti. Kroz analizu relevantne literature i istraživanja, rad ističe kako je niži socio-ekonomski status često povezan s lošijim zdravljem, dugotrajnim bolestima i ograničenim pristupom zdravstvenoj zaštiti. Socio-ekonomske nejednakosti u zdravlju odražavaju se kroz različite faktore, uključujući obrazovanje, prihod, radno okruženje i socio-ekonomski gradijent. Rad također naglašava potrebu za međusektorskim pristupom u smanjenju nejednakosti, uključujući društvene politike, promociju zdravih stilova života i poboljšanje dostupnosti zdravstvenih usluga. Analiza istraživanja ukazuje na potrebu integracije znanja u javne politike kako bi se smanjile socijalne nejednakosti u zdravlju.
Ključne riječi: zdravlje, socio-ekonomski status, nejednakost, utjecaj

ABSTRACT

The paper investigates the complex connection between the socio-economic position of individuals and health inequalities. Through the analysis of relevant literature and research, the paper highlights how lower socioeconomic status often correlates with poorer health, long-term illnesses, and limited access to health care. Socio-economic inequalities in health are reflected through various factors, including education, income, work environment, and socioeconomic gradient. The paper also emphasizes the need for an intersectoral approach to reduce inequalities, including social policies, promotion of healthy lifestyles, and improving the availability of health services. the research analysis points to the need for the integration of knowledge into public policies to reduce social inequalities in health. ***KEYWORDS:*** *health, socio-economic status, inequality, influence*

INTRODUCTION

Usually, the topic of health is investigated through the analysis of various scientifically accepted definitions, with a critical review of them. Individuals and organizations of social and medical professions deal with the definition and concept of health. When the concepts of health and disease are taken from general medical science, the sociological approach to health often remains trapped within official medicine, especially in some countries such as Italy. This can make it difficult to affirm the sociology of medicine as a social science. This situation results in two key limitations. First, there is a tendency to adopt the medical definition of health and disease as the only authoritative one, ignoring other definitions and theoretical areas outside the narrow medical spectrum. This contributes to the dominance of professional medical definitions of health and disease. Another limitation stems from the recent recognition in the sociology of medicine that the experience of illness is a complex and multifaceted problem. (1) For a sociologist of medicine, it is crucial to understand what health means to people, how they organize their own lives on a micro and macro level to preserve health, and how society contributes to or prevents social marginalization and discrimination related to illness. Research indicates numerous interactions between social structure and health, related to age, gender, religion, occupation, marital status, socioeconomic status, ethnic and regional affiliation, and relationships in the workplace, marriage, and family. This suggests that each culture has its specific pathology, and the sociology of medicine investigates illness and dying. Despite the development of this field in Europe, America, and other countries, sociological-medical works in some societies are weakly present, which hinders the professional development of medical sociology and the diversity of approaches to health and disease. (2) In the literature, the term health status is not precisely defined due to differences in the understanding of health. The

operational definition of health is crucial for determining the level of health of an individual or a group. Most authors usually rely on the World Health Organization (WHO) definition from 1948, but only a few authors have attempted to make this definition more concrete. Given the changes in the emphases of medical care, the focus shifted from reducing mortality to improving health and quality of life. (3) The definition and concept of health are dealt with by individuals and organizations of social and medical professions, and the topic of health is often explored by presenting and critically reviewing various scientifically accepted definitions of health. The most general definition of health considers it a state of complete physical, mental, spiritual, and social well-being, not just the absence of disease. Despite this, this definition is criticized for being utopian, static, idealistic, and rigid. Health is a complex, multidimensional, and dynamic phenomenon, and public health research is increasingly investigating the social determinants of health. (4) Social determinants of health include the conditions in which people live, grow, work, and age. Factors such as education, income, and work status are key to differences in perceived health status. Although environmental health characteristics are often mentioned, socioeconomic factors such as income, wealth, and education play a key role in various health outcomes. (5) even though health is considered extremely good in developed countries, there are social inequalities in health. The position of the individual in the social hierarchy is related to the chances of diseases and the length of life. The social gradient becomes more and more pronounced with time, and socio-cultural origin and socio-psychological characteristics influence the attitude toward health. The health of the population does not only depend on the health system but is also related to demographic, economic, and environmental indicators and the educational structure of the population. Health inequalities limit individuals' opportunities to achieve optimal capabilities. (6)

APPROACH TO INEQUALITIES IN HEALTH

Across different periods and among different populations, a general trend of better health among people with higher socioeconomic status has been observed. The connection between socioeconomic status and health status has been observed for a long time. Even in medieval Europe, there are records of a high rate of illness among miners. In the middle of the 19th century, there was already a lot of epidemiological evidence of this connection. Differences in health between different social groups were then attributed to poverty and working-class lifestyles. (7,8)

In the 20th century, especially in the second half, these inequalities were investigated more seriously, and key research was conducted in the United Kingdom. In 1977, the British government formed a working group headed by Sir Douglas Black, president of the Royal Association of Physicians, and the result of that research was known as "The Black Report". For the first time, the report shows significant inequality in health status among different social groups in British society. For example, mortality in the lowest social class of unskilled workers was found to be twice that of the highest social class of experts. (9,10,11)

Despite the introduction of the National Health Service (NHS) in 1948, it has been shown that inequalities in health are increasing, not decreasing. The report concludes that the causes of inequality in health are primarily economic and social differences that significantly affect health, especially differences in income, education, living and working conditions, and employment. Strategic changes in social policy are recommended to reduce health inequalities. Research has shown that health risks are more common among lower

socioeconomic groups, and preventive behavior is less popular among manual workers. Level of education and income are associated with greater interest in improving health. However, lower socioeconomic groups often behave more at risk and participate less in prevention programs compared to higher socioeconomic groups. Reducing inequalities in health has become an international priority, and differences in access and quality of health care among different social groups are a consequence of social inequalities. (12)

Health inequalities, which are not necessarily biological, but determined by social position, have moral and legal meaning and are considered unacceptable and unfair. The principle of equity in health advocates the right of every individual to realize their full health potential regardless of socioeconomic status, including income, education, or social power. Health equity also includes equal access to available health care, equal use, and equal quality care for all, regardless of health needs. The European strategy of the World Health Organization (WHO) of 1991, known as "Policies and Strategies for the Promotion of Social Equity in Health", became a key document. This paper further developed the discussion on improving health equity through a strategic approach. He is particularly notable for the fact that he first introduced Dahlgren and Whitehead's Rainbow Model, which conceptualizes the determinants of health. This model illustrates the relationship between the individual, his environment, and health. At the center of the model is an individual with individual characteristics such as age, gender, and constitutional characteristics. Around the individual are various spheres that affect health, which can theoretically be changed by politics. These include individual lifestyle factors, community influences, and living and working conditions. Within these spheres are determinants of health such as smoking, education, and poverty. (13)

The Rainbow model emphasizes the interactions between individual lifestyles, social norms and networks, and living and working conditions. All these spheres are connected to the broader socioeconomic and cultural environment. Determinants of health, which can be changed by individual, commercial, or political decisions, can be positive health factors, protective factors, or risk factors. (14)

Health inequalities are linked to various social determinants, such as poverty, unemployment, nutrition, and working and housing conditions. The first officially recognized link between health and other areas occurred in 1978 in the Alma Ata Declaration. In that declaration, health is defined as overall physical, mental, and social well-being, emphasizing that health is a basic human right that requires action in various social and economic sectors, including health. The 1997 Jakarta Declaration expanded the prerequisites for health to include peace, home, education, social security, social relations, food, income, a stable ecosystem, sustainable exploitation of resources, social justice, respect for human rights and equality, with special emphasis on poverty as the biggest threats to health. In 2005, the World Health Organization action established the Commission for Social Determinants of Health, which confirmed the key role of unemployment, dangerous workplaces, globalization, and the unavailability of health care in the growth of health inequalities. Health inequalities arise from the stratification of society, and differences in health, health care, and health behavior among social groups are not acceptable or fair. Reducing social inequalities in health can improve the health of the entire population and reduce the cost of health services. (15)

Research on the psychology of social class shows that the material conditions in which people live have a lasting impact on their identities and social behavior. Subjective socioeconomic status, i.e. an individual's perception of his socio-economic position predicts physical health. Poor groups face unhealthy environments, hard work, and health hazards, resulting in inequitable health disparities. The social position has a strong impact on the risk of heart disease, stroke, lung disease, gastrointestinal disease, kidney disease, HIV-related disease, suicide, accidents, and violence. The health gradient results from social differences in society, where lower social status exposes people to a greater risk of disease and chronic stress. Research that connects socioeconomic factors with the occurrence of diseases in different social groups represents key socio-scientific research in the field of medicine and health care. These studies, which began in the USA in the 1920s, were mainly conducted by epidemiologists, public health researchers, and economists. For decades, documented inequalities in health have become the focus of public health policies in developed countries. (16,17)

Time trends in health inequalities, commitments to reduce inequalities, and progress in eliminating health inequalities are described in detail. In the United States, there has been a narrowing of the gap in some health indicators, such as life expectancy, but a widening of the gap in other areas, such as the prevalence of diabetes. Similar trends were recorded in Great Britain, where programs were implemented to reduce inequalities in health. (18) The inverse relationship with belonging to social class or socioeconomic group is expressed in mortality caused by accidents, respiratory and infectious diseases, and chronic and degenerative diseases such as cardiovascular diseases and cancer. Differences in mortality between higher and lower social groups are marked, with lower social status associated with a higher risk of death from these diseases. (19)

Socioeconomic status (SES) plays a key role in health inequalities. Higher-income, level of education, occupation, and general social status are associated with better health status. SES affects the perception of disease symptoms, the severity of symptoms, and the general assessment of health status. Lower SES is associated with more frequent disease symptoms and visits to doctors, while those with higher SES are more likely to rate their health status as better. (20)

Nurses play a key role in implementing strategies to reduce health inequalities. Nurses' understanding of the emergence of health inequalities and their educational preparation for their role in reducing inequalities are extremely important. Nurses can act as public health educators, using health inequities as a foundation for building public health strategies. (21)

International research shows uneven distribution of health and disease among social groups. Belonging to a certain social class significantly affects health and behavior. People from higher social groups have better health, which is reflected in longer life expectancy, lower mortality and incidence of disease, and more positive health behavior. All this information points to a complex relationship between socioeconomic factors and health inequalities. (22)

In Bosnia and Herzegovina, the basic health indicators are still negative "health indicators related to morbidity and mortality and are monitored through vital and health statistical data.

In Croatia, universal access to health insurance plays a key role in the prevention of social inequalities in access to health care. This approach prevents situations that are common in some more developed countries, where inequalities in healthcare lead to economic, existential, and emotional crises for individuals, families, and communities. Public policies based on equality of access to health show how health is an investment, not just an expense. It is a key guarantee of quality of life and a prerequisite for social and economic participation and productivity. By comparing the unmet needs for health services in Croatia with other members of the European Union, it was concluded that, despite the general perception of the public, long queues are not a significant obstacle to access to health services in the Republic of Croatia. Less than 1.5% of citizens from each income quintile expressed unmet needs due to the waiting list. Unfulfilled needs due to financial inaccessibility are most pronounced in the poorest income quintile (4.6%), but they are still lower than the European Union average for the same group. Croatian literature emphasizes the impact of socioeconomic status (SES) on health, taking territorial differences into account. Also, research indicates a connection between unemployment and the development of diabetes, while the incidence of arterial hypertension is significantly higher among low-educated women. All this information emphasizes the importance of universal access to health services as a key factor in reducing social inequalities in the area of health in Croatia. (23,24,15)

Health inequalities are a challenge in all countries, and socially disadvantaged people often face dramatic health difficulties. Within countries, there is a clear relationship between the social status of individuals and their health - the higher the social status, the better the health. These inequalities in health challenge conventional explanations, which often emphasize technical or behavioral aspects.

Traditional approaches to improving health focus on technical solutions, such as improved medical care and sanitation, or behaviors such as smoking and obesity. However, these approaches have limited effect. The key is to create the conditions for prosperity, which ultimately empowers individuals and communities. In addition to material success, social hierarchy also directly affects health. The higher someone is on the social ladder, the better their health is often, and a longer life becomes a reality as they climb the social ranking. Changes in social status often accompany changes in health risks, highlighting the complexity and importance of social determinants of health.

CONCLUSIONS

Health care, lifestyles, and factors in the social environment together form a complex network of health determinants. Despite the importance of health care and lifestyle habits, the social environment plays a key role in shaping access to health care and influencing lifestyle choices. Unfortunately, there is a lack of systematic monitoring of the impact of social determinants on health status in Bosnia and Herzegovina, and the problem stems from the lack of monitoring of health indicators concerning socioeconomic status.

Although the regulations in Bosnia and Herzegovina prescribe the right of every person to health care, the public is often not sufficiently aware that health depends on the socioeconomic conditions of life, and not only on biomedical factors.

To reduce social inequalities in health in Bosnia and Herzegovina, it is necessary to establish intersectoral measures or policies. This includes social policies to improve living conditions (increasing income, education, reducing unemployment, improving housing), measures to promote healthy behavior (especially for risk groups), and measures to improve the availability of quality social and health services for all. This combination of measures can contribute to reducing inequalities in health.

The unfairness of social inequalities in health stems from the fact that there is evidence available to show how to reduce these inequalities, but the implementation of this knowledge is often lacking. Integrating new evidence into policies and practices can significantly change the approach to addressing health inequalities and contribute to social justice.

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THE PROGRAMME TO PREVENT AND CONTROL THE SPREAD OF HOSPITAL-ACQUIRED INFECTIONS IN PATIENTS IN INTENSIVE CARE UNITS

PROGRAM PREVENCIJE I KONTROLE ŠIRENJA INTRAHOSPITALNIH INFEKCIJA KOD PACIJENATA U JEDINICAMA INTENZIVNE NJEGE

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SAŽETAK

Infekcije nastale u toku hospitalizacije definišu se kao bolničke ili nozokomijalne infekcije. To su infekcije koje se razvijaju 48 do 72 sata od hospitalizacije. Značajan su zdravstveni i financijski problem u gotovo svim bolnicama u svijetu. U osnovi, razlikuju se pasivni i aktivni nandzor nad bolničkim infekcijama. Pacijenti smješteni u intenzivnoj njezi su najčešće imunokompromitovani i zbog toga imaju predispoziciju za razvoj infekcije. Jedan od uslova za dobar program nadzora nad bolničkim infekcijama je adekvatna klasifikacija, posebno kada su u pitanju infekcije u jedinicama intenzivne njege. U prijenosu infekcija veoma važnu ulogu imaju kolonizacija i kliconoštvo. Na osnovu dokazivanja kliconoštva, a uporedo s ispitivanjem kliničkih uzoraka, razlikuju se tri tipa infekcija: primarno endogene infekcije, sekundarno endogene infekcije i egzogene infekcije. Najčešći uzročnici bolničkih infekcija su multiplorezistentne bakterije koje nisu dio fiziološke mikroflore, a mogu poticati iz egzogenog ili endogenog izvora. Kada dođe do pada imunološkog sistema domaćina nastaju oportunističke bakterijske infekcije. Većina bolničkih infekcija kod pacijenata u intenzivnoj njezi nastaje kao posljedica prethodne kolonizacije s nekim bolničim patogenom i zbog toga je od velikog značaja da ih se što ranije detektuje kako bi se sprječila bolnička infekcija sa istim uzročnikom, te njihovo širenje na ostale pacijente ili zdravstvene radnike. Skrining program je jedan od najvažnijih faktora sprječavanja i širenja bolničkih infekcija. Njegov značaj se ogleda u ranom otkrivanju, izolaciji i liječenju osoba koloniziranih/inficiranih bolničkim sojevima bakterija. ***KLJUČNE RIJEČI:*** *bolničke infekcije, intenzivna njega, program kontrole*

ABSTRACT

Infections that occur during hospitalisation are referred to as in-hospital or nosocomial infections. These are infections that develop within 48 to 72 hours of hospitalisation. They represent a significant health and financial problem in almost all hospitals around the world. Basically, there is an important difference between passive and active surveillance of hospital acquired infections. Patients admitted to the intensive care are most likely to be immunocompromised and therefore predisposed to developing infection. One of the prerequisites for a good hospital infection surveillance programme is adequate classification, especially when it comes to infections in intensive care units. Colonisation and carrier status play a very important role in the spread of infections. Three types of infections are distinguished on the basis of the detection of carrier status and examination of clinical samples: primary endogenous infections, secondary endogenous infections and exogenous infections. The most common pathogens of hospital infections are multidrug-resistant bacteria that are not part of psychological microflora and can originate from exogenous or endogenous sources. When the host's immune system weakens, opportunistic bacterial infections occur. The majority of in-hospital infections in intensive care patients are due to previous colonisation with some hospital pathogen. Therefore, it is of great importance to detect these infections as early as possible in order to prevent infection with the same pathogen in the hospital, and its spread to other patients or healthcare workers. The screening programme is one of the most important factors in the prevention and spread of hospital acquired infections. Its importance is reflected in the early detection, isolation and treatment of persons colonised/infected with an in-hospital bacterial strain. ***KEY WORD:*** *in-hospital infections, intensive care, control programme.*

INTRODUCTION

An in-hospital infection is defined as an infection acquired during the patient's hospitalization, for which there is no evidence that it was already present or in the incubation period at the time of admission to into the healthcare facility.
Also, commonly used in practice is the definition according to which a hospital-acquired infection is any infection that occurs in a patient regardless of their underlying condition, as well as any infection that occurs in a healthy person (healthcare worker or visitor) and is determined to have occurred in a hospital setting, inpatient facility or private healthcare facility or practice as a result of treatment, care or examination, and develops during the treatment itself or after discharge to home care.
Lately the term hospital/in-hospital infection is substituted by the term infection related to healthcare, and which occur at all the places of providing healthcare starting from households, nursing homes to kindergartens.
Occurrence of infection symptoms depends on incubation duration. This period is precisely defined for wound infections which are considered hospital-acquired infections if they occur within a month after surgery, or up to a year in the case of implant placement.
Today, various invasive procedures, the installation of permanent medical and prosthetic implants, and surgical interventions are associated with the occurrence of hospital-acquired infections.
Their etiology is based on the type or source of the infection and the pathogenic agent (bacteria, viruses, fungi). The infection is declared nosocomial based on microbiological, laboratory and other findings, clinical symptoms, and epidemiological data.

Basically, there is a difference between passive and active surveillance of hospital infections.
Passive surveillance includes analyses and measures related to officially reported cases of public health diseases. Although this type of surveillance has certain limitations and depends on the level of reporting, it is still frequently applicable in practice. In this way, patients are detected very early, as well as patients with an atypical clinical picture of the disease.

Active surveillance involves continuous observation, search and work to detect new cases of hospital-acquired infections. It involves monitoring of colonization and germs, not only among the healthcare users, but also among the employees of all profiles in healthcare facilities.

HOSPITAL-ACQUIRED INFECTION IN INTENSIVE CARES UNITS

Patients placed in intensive care are usually immunocompromised and therefore have a predisposition to the development of infection. A large number of performed invasive procedures (placement of a central venous catheter, mechanical ventilation, urinary catheter, etc.) lead to disruption of natural anatomical barriers (skin, mucous membranes, etc.) and weakening of the body's defence mechanisms.
Thus, endotracheal intubation and mechanical ventilation completely or partially suppress natural defence mechanisms (sneezing, coughing, mobility of the mucous membrane of the respiratory system), which enables the development of infections in patients. Data from the available literature also indicate that almost half of patients placed in intensive care units may develop a hospital-acquired infection. The occurrence of hospital infections caused by multidrug-resistant bacteria is expected in 40% of critically ill patients, even in the absence of typical risk factors for these departments.
It is important to emphasize that the risk factors for the occurrence of endogenous infections in intensive care units, such as patient's immunosuppression due to an injury or the body's stress response to the disease, changes in the patient's bowel and oral microbiota, disruption of the body's defence barriers, patient malnutrition, originate from the patient himself.
One of the prerequisites for a good surveillance program for nosocomial infection is appropriate classification, especially when it comes to infections in intensive care units.
Based on the Centers for Disease Control and Prevention (CDC) definition of hospital-acquired infections which states that for an infection to be defined as nosocomial, there must be no evidence that the infection was present or incubating at the time of admission to the hospital, the following types of infection are distinguished:

a) Community acquired infection – related to the infection that was present on the admission to intensive care unit,

b) Hospital-acquired infection – related to current admission to intensive care,

c) Intensive care unit acquired infection – infection that occurred during the hospitalisation in intensive care unit and was not clinically manifest at the time of admission to the intensive care unit.

However, for distinguishing out-of-hospital and in-hospital infections from infections that occurred in intensive care, it is possible to apply several accepted rules.
According to traditional approach to the classification of hospital-acquired infections, a time of 48 hours after

admission to the intensive care unit is sufficient, which is contested by numerous clinical doctors claiming that such infections cannot be considered infections acquired in intensive care, especially when the patient was colonized with those microorganisms during admission to intensive care.
They believe that the microorganisms that cause these infections do not belong to the flora of intensive care, but that they arrived with the patient during his admission. In this way, a distinction could be made between introduced or primary and secondary transmission of pathogenic microorganisms, in addition to already defined endogenous and exogenous infections.
In infection transmission the colonization and germination play a very important role. In the case when the same strain of microorganisms is isolated in two consecutive samples (e.g. swabs of the rectum, throat, nose, etc.), and we do not have a reaction of the organism, that is, we have an asymptomatic patient, we are talking about germs or the state of germ carriers.
The presence of microorganisms in different locations of the host's body, with the absence of any symptoms, is called colonization and is usually of a temporary nature. When there is a clinical indication, and with the aim to microbiologically prove systemic or local inflammation, diagnostic or clinical samples of organs and tissues that are otherwise sterile are taken, such as samples of the urinary system, lower respiratory system, skin and blood samples.
Based on the proving of germination, at the same time with assessment of clinical samples, three types of infection are distinguished:

a) primary endogenous infections – the most common type of infection in intensive care units (50-85%). They occur very early, during the first week of hospitalisation. Of all the infections that belong to this group, the greatest problem is infections of the lower respiratory system in patients on mechanical ventilation. The causative agents are mostly sensitive microorganisms, which reach these departments through the patient, and the most common are Streptococcus pneumoniae, Haemophilus influenzae and Staphylococcus aureus;
b) secondary endogenous infections - most likely to occur after the first seven days of stay in the intensive care unit. Potentially pathogenic microorganisms, such as Gram-negative bacteria and MRSA, are most often identified as causative agents. These microorganisms account for one third of all infections in intensive care units. They first colonize the upper respiratory tract (trachea, throat, nose), then the stomach and intestines.

c) exogenous infections – caused by hospital, potentially pathogenic microorganisms and compared to the previous types, they occur in 15% of cases. Their occurrence is not related to the duration of hospitalization in intensive care units. Examples of these infections are infections of the lower respiratory tract caused by Acinetobacter baumannii, most likely through contaminated respiratory equipment, and cystitis caused by Serratia marcescens and related to the placement of a urinary catheter. Equipment and space hygiene of the intensive care unit is the best measure in controlling and preventing the spread of these infections.

Based on all of the above, it is considered that only secondary endogenous and exogenous infections are those that occurred in the intensive care unit, while primarily endogenous infections are considered to have been introduced from the outside.

According to the research of Centers for Disease Control and Prevention most often hospital- acquired infections are:

a) ventilator-associated pneumonia (VAP),
b) blood infections related to central venous catheter,
c) urinary infections related to urinary catheter
d) surgical wound infection.

The most frequent causes of hospital infections are multidrug-resistant bacteria that are not part of the physiological microflora, and can originate from an exogenous or endogenous source. When the host's immune system declines, opportunistic bacterial infections occur. The most common Gram-positive microorganisms causing infections are coagulase-negative Staphylococcus (CoNS), Staphylococcus aureus, Streptococcus types and Enterococcus types (e.g. Enterococcus faecalis, faecium) (52).
Frequent Gram-negative microorganisms that appear as the couses of hospital-acquired infections are the ones from Enterobacteriaceae family, including Klebsiella pneumoniae and Klebsiella oxytoca, Escherichia coli, Proteus mirabilis and Enterobacter types, Pseudomonas aeruginosa and Acinetobacter baumanii (53). Bacteria resisted to many antibiotics are frequent causes of hospital-acquired infections and connected to significant morbidity and mortality rate in hospitalized patients (54).
Under the selective pressure of exposure to antibiotics, many pathogens can very quickly develop resistance to standard antibiotics. In the hospital setting, the most frequently resistent microorganisms are MRSA, vancomycin intermediate Staphylococcus aureus (VISA) i Staphylococcus aureus resistant to vancomycin (VRSA), Enterobacteriaceae resistent to cephalosporin extended specter (ESBL), Enterococcus faecium resistant to vancomycin (VRE), Enterobacteriaceae and Acinetobacter resistant to carbapenem, and Pseudomonas aeruginosa resistant to more antibiotics (55).

SUPERVISION OVER THE INFECTIONS IN INTENSIVE CARE UNITS

Most hospital infections in patients in intensive care occur because of previous colonization with a hospital pathogen, and it is therefore of great importance to detect them as early as possible to prevent hospital infection with the same pathogen, and its spread to other patients or healthcare workers (126).
The mucous membrane of the nose, pharynx and trachea, the skin surface, the mucous membrane of the urinary bladder and digestive tract (stomach and intestines), surgical and decubitus wounds in patients who stay in the intensive care unit for a long time are often colonized with the above-mentioned hospital microorganisms. Foreign materials that are used and remain in the body long enough, such as endotracheal tubes, tracheal cannulae, arterial, venous, and urinary catheters, become contaminated with nosocomial pathogens over time.
Infections that occur in the first few days of stay in the intensive care unit are usually caused by so-called endogenous pathogens, some of which can be found on the mucous membranes and skin of healthy people (such as Staphylococcus aureus and others). However, in most cases, infections occurring in the intensive care unit are caused by microorganisms from the hospital (127).

THE ROLE OF MICROBIOLOGICAL SUPERVISION IN INTENSIVE CARE UNITS

Control or screening samples are all those samples which are taken from patient's body parts, and for which we know that potentially pathogenic microorganisms can be found on them. It is recommended that such samples be taken upon admission to the hospital, and thereafter at least twice a week.
Microbiological surveillance in intensive care units can be defined as continuous, systematic collection, analysis and interpretation of microbiological data essential for the planning, implementation and evaluation of conducting infection control measures, either at the level of an individual or the entire department.
Microbiological lab, aside from participation in establishing the diagnosis of infections by sampling clinically relevant samples, also has a very important role in the early detection of colonized patients by introducing control swabs.
The screening programme is one of the most important factors in preventing and spreading hospital infections. Its importance is reflected in the early detection, isolation and treatment of persons colonized/infected with hospital strains of bacteria. This type of programme is implemented in highly developed countries like Sweden, where we find a low prevalence of resistant strains of microorganisms. The programme includes screening of all patients who were hospitalized abroad in the previous months.
The control of MRSA serves as the best-known example of the application of microbiological surveillance that serves to prevent and control the spread of infections caused by this pathogen. However, several authors have reported failure of this strategy to control the spread of MRSA, while others have reported resurgence of infections after cessation of intensive surveillance, and data on long-term or continuous surveillance are very limited.
Early detection of patients colonized with Staphylococcus aureus resistant to methicillin could make it possible to prevent this pathogen in hospital setting by applying strict precaution measures. In general, it appears that countries with a very low or sporadic prevalence of MRSA, such as the Netherlands and Denmark, have so far effectively used screening of patients referred from abroad as an effective method in preventing the spread of this pathogen in their hospitals.
Much attention has been paid to the control of infections caused by VRE, with several studies demonstrating both the potential and limitations of microbiological surveillance-guided precautions in preventing the spread of VRE. One example is the occurrence of VRE in an Italian intensive care unit, where an active microbiological surveillance programme proved successful in stopping the spread of this pathogen in the unit. An active surveillance programme combined with precautions for contact with patients colonized or infected with this nosocomial pathogen has proven to be effective, even when endemicity has been established.

In epidemics caused by Acinetobacter baumannii, it is recommended to take swabs from the throat, nose, axilla and groin, because these regions are most frequently colonized with this bacterium, while for the early detection of patients colonized or infected with carbapenem-resistant enterobacteriaceae, it is recommended to take anal or rectal swabs.
It is known that the screening programme has certain shortcomings, such as financial, ethical, and risks of false-negative results, related to proper sampling, i.e. the method of random selection. Therefore, routine hospital screening for MDR bacteria, if it is part of the nosocomial infection control policy, should be sufficiently effective and efficient for both the patient and the healthcare institution where it is performed.

CONCLUSION

The use of various invasive methods, previous hospitalization, prolonged stay in the intensive care unit, and patient age are significant risk factors for the occurrence of nosocomial infections in patients placed in the intensive care unit. A correlation has been established between the presence of risk factors and reported nosocomial infections.
It is necessary to implement a microbiological screening programme in intensive care units for patients on admission and during their stay in these departments. The

importance of the screening programme is demonstrated by the early detection of patients colonized with multidrug-resistant strains of bacteria, which can significantly contribute to preventing the occurrence and spread of hospital-acquired infections.

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SATISFACTION OF MOTHERS WITH HEALTH SERVICES RECEIVED IN THE MATERNITY WARD IN THE PUBLIC INSTITUTION TRAVNIK HOSPITAL

ZADOVOLJSTVO MAJKI ZDRAVSTVENIM USLUGAMA PRIMLJENIM NA POROĐAJNOM ODJELU U JAVNOJ USTANOVI BOLNICA TRAVNIK

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SAŽETAK

UVOD: *Postoje mnoge definicije kvalitete,ali postoji jedna kratka i jasna koja glasi:“Kvaliteta je zadovoljstvo kupca.“* ***CILJEVI RADA:*** *1. Ispitati zadovoljstvo porodilja uslugama ostvarenim na porođajnom odjeljenju JU Bolnica Travnik; 2. Utvrditi stepen zadovoljstva porodilja odnosom zdravstvenog osoblja; 3. Ispitati zadovoljstvo porodilja slobodom izbora u procesu ostvarivanja zdravstvenih usluga; 4. Utvrditi lična iskustva porodilja o tretmanu i zdravstvenoj njezi ostvarenoj u bolnici* ***METODE RADA:*** *Istraživanje je sprovedeno pomoću originalnog autorizovanog upitnika .. Istraživanje je bilo potpuno anonimno i iz ponuđenih odgovora se ne može saznati identitet ispitanikaSprovedeno je putem patronažne službe u Srednje bosanskom kantonu u periodu od 01.07.-01.08..g.* ***REZULTATI ISTRAŽIVANJA:*** *Rezultati Istraživanja ,ovog rada na osnovu urađene ankete pokazuje da je 90% ispitanica zadovoljno odnosom osoblja u ovoj ustanovi,većina ili 79% ispitanica je dobilo potrebne informacije u toku boravka u bolnici u vezi postpartalne njege i njege bebe. 95% ispitanica je zadovoljno prisustvom babice u Sali .Prema ovom istraživanju 91% majki od ukupno ispitanih 94 bi preporučile porod u ovoj ustanovi i dobile su potrebnu dokumentaciju pri izlasku iz bolnice.* ***ZAKLJUČCI:*** *Istraživački alat je nepouzdan, jer nije korišten standardizirani upitnik, za koji je pregledom stručne i naučne literature, utvrđeno da kao takav ne postoji.U radu je potvrđena glavna hipoteza rada da porodilje sa područja Srednje bosankog kantona iskazuju visok stepen zadovoljstva pruženim zdravstvenim uslugama u JU Bolnica Travnik.“* ***KLJUČNE RIJEČI:*** *zadovoljstvo, porodilja, zdravstvene usluge*

ABSTRACT

Introduction: There are many definitions of quality,but there is one short and clear one that reads:“Quality is customer satisfaction.“ ***OBJECTIVES:*** *1. To examine the satisfaction of mothers with the services provided at the maternity ward of the Public Institution Hospital Travnik (JU Bolnica Travnik); 2. Determine the degree of satisfaction of mothers with the attitude of medical staff; 3. Examine the satisfaction of mothers with the freedom of choice in the process of providing health services; 4. To determine the personal experiences of the mother about the treatment and health care provided in the hospital.* ***METHODS:*** *The research was conducted using the original authorized questionnaire. The research was completely anonymous and the identity of the respondents cannot be found out from the offered answers.* ***SURVEY RESULTS:*** *The results of the survey, based on a survey, show that 90% of respondents are satisfied with the attitude of staff in this institution, most or 79% of respondents received the necessary information during their hospital stay regarding postpartum care and baby care. 95% of respondents are satisfied with the presence of the midwife in the Hall. According to this research, 91% of mothers out of a total of 94 respondents would recommend childbirth in this institution and received the necessary documentation when leaving the hospital.* ***CONCLUSIONS:*** *The research tool is unreliable, because a standardized questionnaire was not used, for which a review of professional and scientific literature found that it does not exist as such.*
The paper confirms the main hypothesis of the work that mothers from the area of Central Bosnia Canton show a high degree of satisfaction with the provided health services in the Public Institution Hospital Travnik. ***KEY WORDS:*** *satisfaction, childbirth, health services*

INTRODUCTION

For the satisfaction of the birthing mother, as well as the staff, it is necessary to gradually and continuously work and strive towards the goal of good and successful communication, organization, and the provision of quality and efficient service.

Mothers from the entire Central Bosnia Canton (SBK), from all cities from Kreševo to Jajce, but also from other cities of Bosnia and Herzegovina, come to give birth at Travnik Hospital. Control examinations and monitoring of pregnancy are possible at the level of primary health care (PHC), i.e. in gynecological clinics at the health center and private gynecological clinics, as well as in JU Hospital Travnik.

In previous years, the working conditions were not satisfactory, the equipment used was quite old, and the staff was tired and exhausted. There was a frequent occurrence of dissatisfaction with health care services among women giving birth, and the reason for this was the lack of medical personnel, the large volume of work and, therefore, the overload of the staff.

Overloading of staff was the first item that had to be solved, so the admission of new staff was requested and a daily shift was established in the ward, i.e. a ward nurse works during the daily shift in the ward. Her tasks are to distribute therapy, help women in labor with breastfeeding, perform personal hygiene, help with movement, and exercise when women in labor get up. She also completes all work outside the department that is important and necessary to be done, for maternity or neonatology.

The medical equipment was renewed in 2018, and the environment of the ward is more like a home environment. Each room has two beds, two cots for babies, two tables for meals and 2 nightstands for storing belongings of women in labor.

The delivery room is equipped with 3 delivery tables, so it is possible to conduct 3 births at the same time. It is equipped with oxygen, carts and shelves with therapy, a scale, and a warm table, which are important for the treatment of the baby, then it has a protocol, that is, a place where new births are registered in the protocol. The operating room is located in the delivery department, right next to the delivery room, so it is possible to perform an emergency caesarean section in the shortest possible time.

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The birth is led by a midwife, that is, an obstetrician with a specialist doctor, following numerous procedures that are written for the purpose of achieving quality health care for mothers and babies, and all for the purpose of providing quality service.

There are procedures for: sampling of laboratory and other material for diagnostic purposes, admission procedure, delivery procedure, caesarean section procedure, newborn treatment procedure, breastfeeding procedure, personal hygiene maintenance procedure, infectious waste disposal procedure, etc.

Regarding the processing of the newborn after birth, the baby is identified by putting a number around the baby, and the same number on the mother's arm, and in addition a bracelet with information: mother's name and surname, baby's number, date and time of birth, gender . Correct identification is important, so that babies are not exchanged, and of course a list for the baby is written, which constitutes the accompanying documentation. After the birth, the midwife places the baby immediately on her chest, achieving skin-to-skin contact, then the neonatology nurse repeats the procedure, identifies the mother and the baby, shows the baby to the mother, and takes the baby to the neonatology department or to the baby room, where she is processed according to the procedure, gives the necessary therapy, and then a twenty-four-hour stay of the mother with the baby was made possible.

At the gynecological and obstetric service, there is also a school for pregnant women, which organizes it in smaller groups at certain times, all with the aim of preparing mothers for the maternity ward, childbirth, adequate nutrition for mother and baby, newborn care, personal hygiene and, finally, independent preparation for a baby and a new life for a stay outside the hospital.

OBJECTIVES OF THE WORK

1. To examine the satisfaction of women in labor with the health services provided at the delivery department of the Travnik Hospital.
2. To determine the degree of satisfaction of parturients with the professional relationship of the health personnel.
3. To examine the satisfaction of women in labor with freedom of choice and decision-making in the process of providing health services.
4. Examine the way of using health services in the public and private sector
5. Determine the personal experiences of women in labor regarding treatment during and after childbirth (presence of a midwife, pain treatment, postpartum information, etc.).
6. Evaluate the overall quality of the provided health services.

RESEARCH METHODS

RESPONDENTS

94 women in labor (respondents) from the area of the Central Bosnian Canton participated in the research, who received health care services at the delivery department of the Hospital in Travnik. The selection of respondents was made by the method of random selection. The criteria for inclusion in the research were mothers in labor who received the health service in the period from January 2023 to June 30, 2024.

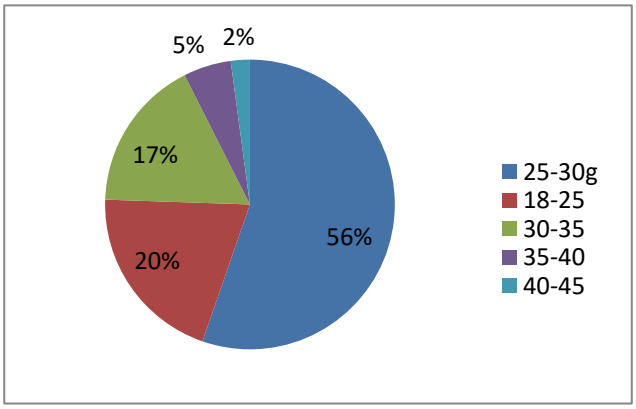
METHODS

The research was descriptive, analytical and comparative. The original author's guide was used for the research, created on the basis of a review of professional and scientific literature, as well as practical experience. The questionnaire is non-standardized and in this way we wanted to contribute to science and future research in this area. The research was completely anonymous and the identity of the respondents cannot be known from the answers provided. The research was conducted through the patrol service in the Central Bosnian Canton in the period from July 1 to August 1, 2020.

All health facilities and delivery departments should provide safe and effective care for mothers and their children, and the services are provided by trained and qualified professionals. Those services should be according to the recommendations of the Agency for Quality and Accreditation of Health Services.

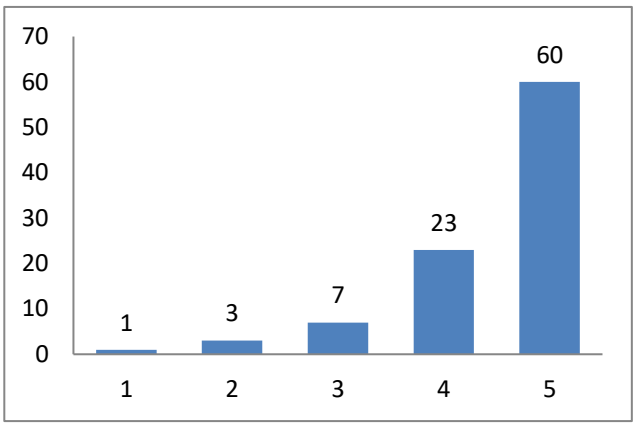
RESEARCH RESULTS

The research was conducted among 94 women in labor from the area of the Central Bosnian Canton, through the monitoring service. The research included respondents who received health services at the maternity ward of the Travnik Hospital in the period 2023/2024.
The research resulted in the following data, which are shown in the following graphs.



Graph 1. Age structure of respondents

94 respondents participated in our survey. The largest number of respondents belonged to the 25-30 age group, 52 (56%).



Graph 2. Overall assessment of the quality of health services

The overall rating of the quality of health services is 5 for 60 (63.8%) respondents, and dissatisfaction was expressed by only 1 respondent.

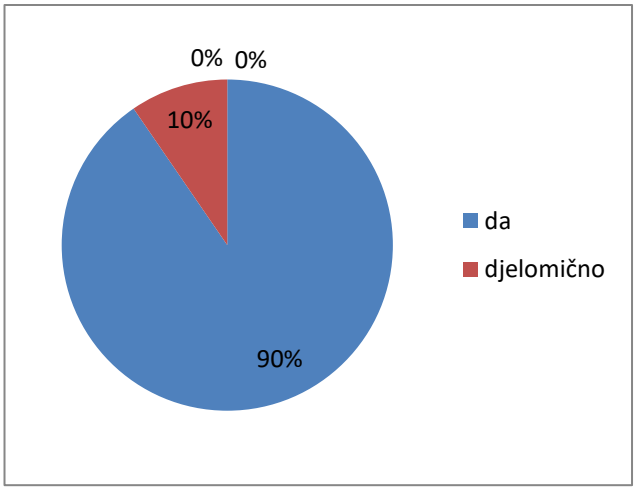


Chart 3. Satisfaction with the professional attitude of the staff during childbirth

85 (90%) respondents were satisfied with the professional attitude of the medical staff during the act of childbirth.

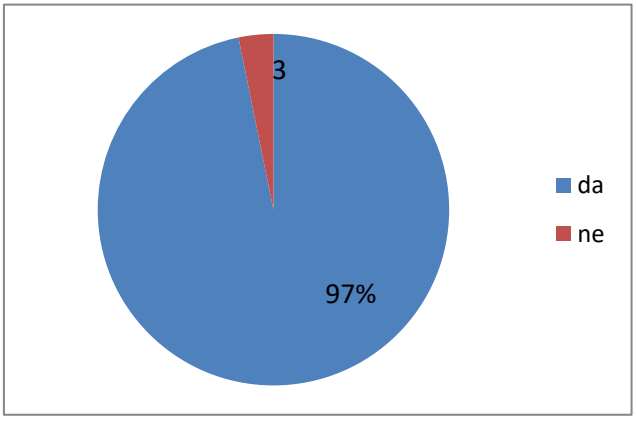


Chart 4. Recommendation for giving birth in Hospital Travnik

91 (97%) respondents would recommend giving birth to other mothers in this Hospital, and 3 (3%) respondents would not recommend giving birth in this institution.

DISCUSSION

Comparing many studies, We can see that the satisfaction of the women giving birth,as well as the metod of delivery,has changed from year to year. For example ,some hospitals have water birth metods ,as in the case with general hospitals „Prim.dr Abdulah Nakaš „ in Sarajevo.

The reserch showed through a retrospective analysis of water birth in that hospital.The data were obtained from the health records of mothers in labor, in period monitored from January 1,2008 . until December 31,2011 year. The sample was followed by 60 respondents.

The results of the survey according to the internal satisfaction questionnaire and the recommendations of the birth attendants indicate that 100% of the patients had the experiences they expected from this kind of birth and are extrenmely satisfied wiht thw presence of professional help from the obstetrician.(9)

The Roma population is the most numerous national minority in Bosnia and Herzegovina ,but there is no accurate on the numbers of Roma in Bosnian and Herzegovina,because a large number of Roma live in illegal settlements without documents or permanent residence. Roma womwn marry very yung,their duty is to take care of their husband and household and one out of three girls will become a mother before the oge of 18,which poses a risk to her health and the health of the baby.(10)

In the research conducted among the patients of the „White Monastery Health Center „ if can be noted that the patients are mostlysatisfied with the work of the nurse /technicans in primary health care wihth the statemant „I was satisfied with the visita of the nurse „ to the medical tehnican full agree. Comparing this statement with reserch curried out in the World,it can be noticed that the results are quite similar because whenever patient satisfaction with the woerh of nurse is investigated, patient are satisfiled.The results of the study conducted using the „Nursing patient Satisfaction survey“the scales show an overallhigh level of satisfaction among medical nurses.(11)

Nurse, regardless of the level of education, are an important part of the rehabilitation team. Interdisciplinary type work, continuous education, kindess, professionalisam, accessibillity, are the famous qualites of nurses in rehabilitation. (12)

In early 2008 years, research was conducted of the level of functional and tehnical dimensions of service quality and the impact of patient expectations on the perceptual levels of service quality approval for this research was obtained from the etics committee of the University Clinical centes Tuzla.

It is significant that the assumed satisfaction of the patient through the relationship between perceivedand expected quality showed a high level of satisfaction when using the weighted model.,i.e. when calculatingthe meaning of individuale dimensions ,which is on the line of reducting the weighted mensurement of quality as the gap between perceived and expected quality.

It is important to emphasize that the level of satisfaction is highest for services provided in the field of biochemistry, then for the technical and functional dimension of quality, then for the services of radiology, gynecology and obstetrics.

When it comes to the technical dimension of quality, which is logical considering the positive difference between the perceived and expected level quality .(13)

The conclusion of this research, based on the conducted survey, shows that 90% of the respondents are satisfied with the attitude of the staff in this institution, the majority or 79% of the respondents received the necessary information during their stay in the hospital regarding postpartum care and baby care.

95% of respondents are satisfied with the presence of midwives in the hall.

According to this research, 91% of mothers out of a total of 94 would recommend giving birth in this institution and received the necessary documentation before leaving the hospital.

CONCLUSIONS

1. Mothers in labor from the area of the Central Bosnian Canton at the maternity ward of the Travnik Hospital have access to all information and are given all their rights when making decisions.
2. Mothers in labor express high satisfaction with the professional attitude of the health staff and the information received on postpartum care and baby care, which confirms the initial hypothesis of the work.
3. The majority of respondents (93%) are satisfied with the services of nurse-technicians.
4. The majority of women in labor (62%) had the opportunity to independently choose a competent doctor who monitored the course of pregnancy and childbirth.
5. A smaller number of respondents, 12 (41%) stated that health services are available in the private sector, and the reason was the lack of doctors in the public sector. 6. The majority of respondents (91%) would recommend giving birth in this institution and received the necessary documentation upon leaving the hospital.

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ASSESSMENT OF ATTITUDES AND CONSUMPTION OF NICOTINE PRODUCTS AMONG HEALTHCARE PROFESSIONALS AT THE GENERAL COUNTY HOSPITAL IN VINKOVCI

PROCJENA STAVOVA I KONZUMACIJE NIKOTINSKIH PROIZVODA ZDRAVSTVENIH DJELATNIKA U OPĆOJ ŽUPANIJSKOJ BOLNICI U VINKOVCIMA

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SAŽETAK

U radu je prikazano istraživanje u kojem se ispitivala procjena stavova i konzumacije nikotinskih proizvoda kod zdravstvenih djelatnika zaposlenih u Općoj županijskoj bolnici u Vinkovcima u Republici Hrvatskoj. Očekivani uzorak bio je 150 ispitanika, pri čemu je dobiven konačni uzorak od 123 ispitanika. Istraživanje je pokazalo da je ukupan postotak pušača u Općoj županijskoj bolnici u Vinkovcima 43,9% od čega 17, 9% ispitanika puši dva do tri puta tijekom radnog vremena, 12,2 % puši oko pet puta, a više od šest puta s radnog mjesta odlazi pušiti njih 13, 8%. Istraživanje je pokazalo da nema značajnih razlika u stavovima o pušenju prema spolu ispitanika, niti u stavovima pušača o pušenju i pušenju na radnom mjestu prema spolu ispitanika. Odgovori ispitanika s obzirom na dob ukazuju da su mlađi ispitanici liberalnijeg pogleda na pušenje i štetnost pušenja jer nisu još iskusili zdravstvene rizike i posljedice dima. Ispitanici sa visokom stručnom spremom skloniji su mišljenju da je pušenje štetno za zdravlje, da je pušenje socijalna bolest, kradljivac vremena na poslu, da bi zdravstveni djelatnici trebali biti primjer i ne konzumirati cigarete te ih značajno više opterećuje što puše naspram ispitanika sa srednjom stručnom spremom. U ovom istraživanju čak 78,6 % ispitanika pušača navode da ih pušenje na radnom mjestu smiruje. Namjeru o prestanku pušenja navelo je svega 35,8 % ispitanika dok je 15,8 % ispitanika odgovorilo da nema namjeru prestati pušiti. Ključne riječi: duhan; nikotin; pušenje; pušenje na radnom mjestu; zdravstveni djelatnici.

ABSTRACT

The study presented a survey in which the assessment of attitudes and consumption of nicotine products among healthcare professionals employed at the General County hospital in Vinkovci in the Republic of Croatia was surveyed. The expected sample was 150 people, with the final sample consisting of 123 subjects. The survey showed that the total percentage of smokers in General County hospital in Vinkovci is 43.9%, of which 17.9% of subjects smoke two to three times during working hours, 12.2 % of subjects smoke about five times, and 13.8% of subjects leave their workplace to smoke more than six times. The survey showed that there were no significant differences in attitudes to smoking according to the gender of the respondents, nor in the attitudes of smokers to smoking and to smoking at work according to gender of the respondents. The respondents' answers in relation to their age indicate that younger respondents have a more liberal attitude towards smoking and smoking in the workplace because they have not yet experienced health risks and consequences of cigarette smoking. Respondents with higher professional qualifications are more likely to believe that smoking is harmful to health, that smoking is a social disease, a time robber at work, that healthcare workers should be an example for not smoking and that they are much more affected by smoking than respondents with secondary school qualifications. In this survey 78.6 % of respondents stated that smoking at work calms them down. Only 35.8 % of respondents stated an intention to quit smoking and 15.8 % of respondents stated that they had no intention of quitting. ***KEY WORDS:*** *tobacco; nicotine; smoking; smoking on workplace; healthcare professionals*

INTRODUCTION

Doctors, nurses and other healthcare workers have the task of health education in their field of work, which is linked, among other things, to providing information about healthy lifestyle. At the same time, they are a role models for patients in certain areas of health behavior. Therefore, healthcare professionals who smoke in their workplaces send contradictory messages to their patients. The surveys show that a significant proportion of healthcare workers smoke. For example, in the survey conducted in 2021, at the General hospital "Dr. Josip Benčević" in Slavonski Brod with a sample of 127 respondents, it was found that 43.9% of respondents smoke at their workplace (1). Similar results were obtained in a study conducted at the Clinical hospital center Osijek with a sample of 499 respondents, 35.1% of whom are active smokers, which shows that more than a third of healthcare workers are smokers (2). In addition, the research on the percentage of smokers among doctors and nurses in Bosnia and Herzegovina, with a sample of 273 respondents also revealed an extremely high percentage of 51% of nurses and 40% of doctors who smoke (3). The results of this study are similar to those of a study conducted in Serbia, in which 45.60% of 1383 respondents were smokers, including 34.13 % of doctors and 51.87% of nurses (4). Significantly lower, but still extremely high percentage of smokers among healthcare professionals was found in a reasearch conducted in Spain in 2015 on a sample of 612 healthcare workers, in which 11.7% of smokerswere confirmed among healthcare professionals (5).

One would expect that people who are aware of the risks of using nicotine products would avoid them, but it is known that this is not the case. The literature indicates that a high percentage of healthcare workers are smokers, which is often attributed to stressful working environment created by excessive workloads, increased overtime and shift work (2, 5, 6).

AIM

Medical experts see first-hand the devastating effects of consuming nicotine products, but they still smoke in large numbers. Therefore, knowledge is not the key to helping more healthcare professionals quit smoking. It is precisely for this reason that the survey was conducted among the healthcare professionals in GCH Vinkovci with the aim of:

To investigate the attitudes of healthcare professionals of GCH Vinkovci towards the use of nicotine products

To determine the frequency of nicotine product use among GCH Vinkovci healthcare professionals in their workplace

To compare the respondents' answers in terms of age, gender, smoking status, frequency of nicotine product use and professional qualification

RESEARCH METODOLOGY

RESPONDENTS

The respondents of this research are exclusively healthcare professionals employed at the General County hospital Vinkovci. The expected sample (distributed survey questionnaires) sample was 150 people, but the final sample consisted of 123 subjects.

METHODS

A questionnaire used in the research was prepared for this study. The questionnaire consisted of three parts: the socio-demographic part with three sections; the status of nicotine product use with five sections and the part on attitudes towards nicotine product use with sixteen sections. The questionnaire consists of statements in the form of the 5-point Likert scale. The questionnaire was created in Google Sheets and sent to e-mail addresses of respondents, WhatsApp, Viber and Messenger. The survey started on January 1, 2023 and ended on January 31, 2023.

Descriptive statistical methods were used to describe the distribution of the frequencies of the studied variables. The mean values were expressed by the median and the interquartile range for variables that are not normally distributed. A Mann Whitney test was used to check the differences between two independent groups and the Kruskal-Wallis test was used to check differences in the results. The Kolmogorov-Smirnov test was used to test normal distribution. The value p<0.05 was taken as the statistical significance level. The statistical package IBM SPSS 25, produced in Chicago, USA, in 2017 was used for processing.

RESULTS

123 respondents participated in the research. Of the total number of respondents, 97 (78.9 %) were female, 40 (32.5 %) of them were between 18 and 30 years old, 74 (60.2 %) of respondents were nurses by profession, and 83 (67.5 %) of them had a secondary professional qualification (Table 1).

Table 1. Characteristics of the investigated sample

		N (%)
Gender	Male	26 (21.1)
	Female	97 (78.9)
Age	18 to 30	40 (32.5)
	31 to 40	38 (30.9)
	41 to 50	23 (18.7)
	51 to 60	13 (10.6)
	> 60	9 (3.3)
Occupation	Nurse	74 (60.2)
	Bachelor of science in nursing	17 (13.8)
	Master of science in nursing	13 (10.6)
	Doctor	10 (8.1)
	Physiotherapist	3 (2.4)
	Laboratory assistant	4 (3.3)
	Caregiver	2 (1.6)
Professional qualifications	Secondary professional qualifications	83 (67.5)
	Post-secondary school qualifications	17 (13.8)
	University qualifications	23 (18.7)

Of the total number of respondents, 56 (45.5 %) were smokers, 23 (18.7 %) have tried to quit smoking once or twice, 39 (31.7 %) consume factory-made cigarettes, 43 (35 %) consume less than 10 cigarettes, and 22 (17.9 %) leave workplace two to three times to smoke (Table 2).

Table 2. Distribution of variables related to smoking

		N (%)
Your status of nicotine smoking	I have never smoked	48 (39)
	I am a former smoker	19 (15.4)
	I am smoker	56 (45.5)
How many times have you tried to quit smoking	None	22 (17.9)
	Once / twice	23 (18.7)
	Many times	20 (16.3)
	I have never smoked	58 (47.2)
What type of nicotine products do you use	Factory-made cigarettes	39 (31.7)
	Tobacco	9 (7.3)
	Vaporizers	21 (23.9)
	E-cigarettes	2 (1.6)
	Heated tobacco products	4 (3.3)
	Other	1 (0.8)
	I do not smoke	67 (54.5)
How many cigarettes do you smoke per day	Less than 10	43 (35)
	10 to 20	12 (9.8)
	21 to 30	1 (0.8)
	31 to 40	0
	More than 40	0
	I do not smoke	67 (54.5)
How often do you or have you left your workplace to smoke during your shift	I do not smoke in my workplace	2 (1.6)
	Two to three times	22 (17.9)
	About 5 times	15 (12.2)
	More than 6 times	17 (13.8)
	I do not smoke	67 (54.5)

Of the total number of respondents, 39 (31.7 %) fully agreed with the statement that smoking is a social disease, 39 (31.7 %) fully agreed with the statement that smoking is time waster at work, 59 (48 %) fully agreed with the statement that passive smoking is as harmful to health as active smoking; 72 (58.5 %) strongly agreed that pictures of diseased organs on the cigarette packets can discourage smoking and 42 (34.1 %) strongly disagreed

that healthcare professionals should be role models for patients regarding cigarette use (Table 3).

Table 3. Distribution of answers to questions related to the attitudes towards smoking

		N (%)
Smoking is a social disease	Strongly disagree	21 (17.1)
	Disagree	6 (4.9)
	Neither agree nor disagree	36 (29.3)
	Agree	21 (17.1)
	Strongly agree	39 (31.7)
Smoking is a significant “time waster“ at work	Strongly disagree	30 (24.4)
	Disagree	14 (11.4)
	Neither agree nor disagree	25 (20.3)
	Agree	15 (12.2)
	Strongly agree	39 (31.7)
Passive smoking is just as harmful to health as active smoking	Strongly disagree	8 (6.5)
	Disagree	6 (4.9)
	Neither agree nor disagree	27 (22)
	Agree	23 (18.7)
	Strongly agree	59 (48)
I do not believe that smoking significantly impairs health	Strongly disagree	50 (40.7)
	Disagree	12 (9.8)
	Neither agree nor disagree	19 (15.4)
	Agree	13 (10.6)
	Strongly agree	29 (23.6)
Pictures of diseased organs on the cigarette packets can discourage smoking	Strongly disagree	72 (58.5)
	Disagree	20 (16.3)
	Neither agree nor disagree	24 (19.5)
	Agree	2 (1.6)
	Strongly agree	5 (4.1)
An increase in the price of cigarettes can reduce the number of smokers	Strongly disagree	41 (33.3)
	Disagree	18 (14.6)
	Neither agree nor disagree	34 (27.6)
	Agree	16 (13)
	Strongly agree	14 (11.4)
Healthcare professionals should be role models for patients regarding the consumption of cigarettes	Strongly disagree	22 (17.9)
	Disagree	7 (5.7)
	Neither agree nor disagree	37 (30.1)
	Agree	15 (12.2)
	Strongly agree	42 (34.1)

Of the total number of respondents who described themselves as smokers (N=56), 19 (33.9 %) neither agreed nor disagreed with the statement that they intend to quit smoking, 30 (53.6 %) fully agreed with the statement that they would not allow their underage child to smoke, 17 (30.4 %) fully agreed with the statement that they try to show their patients how important it is for their health to quit smoking (Table 4).

Table 4. Distribution of attitudes related to smoking and smoking at work (I part)

		N (%)
I intend to quit smoking	Strongly disagree	15 (12.2)
	Disagree	2 (3.6)
	Neither agree nor disagree	19 (33.9)
	Agree	10 (17.9)
	Strongly agree	10 (17.9)
I would not allow my underage child to smoke	Strongly disagree	2 (3.6)
	Disagree	4 (7.1)
	Neither agree nor disagree	12 (21.4)
	Agree	8 (14.3)
	Strongly agree	30 (53.6)
I try to show my patients the importance of quitting smoking for their health	Strongly disagree	8 (14.3)
	Disagree	9 (16.1)
	Neither agree nor disagree	14 (25)
	Agree	8 (14.3)
	Strongly agree	17 (30.4)
If I have a patient who is a smoker and has some consequences of smoking, I have the urge to stop smoking	Strongly disagree	16 (28.6)
	Disagree	6 (10.7)
	Neither agree nor disagree	20 (35.7)
	Agree	6 (10.7)
	Strongly agree	8 (14.3)
I am burdened by smoking	Strongly disagree	14 (25)
	Disagree	7 (12.5)
	Neither agree nor disagree	16 (13)
	Agree	8 (14.3)
	Strongly agree	11 (19.6)

Of the total number of respondents who described themselves as smokers (N=56), 36 (64.3 %) fully agreed with the statement that smoking at the workplace calms them down and relieves stress, 16 (28.6 %) neither agree nor disagree with the statement that they feel uncomfortable because they perceive the unpleasant

smell of cigarettes after smoking and know that others perceive it, too (Table 5).

Table 5. Distribution of smokers' attitudes related to smoking and smoking at work (II part)

		N (%)
Smoking at work calms me down and relieves the stress	Strongly disagree	1 (1.8)
	Disagree	4 (7.1)
	Neither agree nor disagree	7 (12.5)
	Agree	8 (14.3)
	Strongly agree	36 (64.3)
I feel uncomfortabe because I can feel the unpleasant smell of cigarettes after smoking, and I know that others feel it, too	Strongly disagree	10 (17.9)
	Disagree	7 (12.5)
	Neither agree nor disagree	16 (28.6)
	Agree	9 (16.1)
	Strongly agree	14 (25)
I believe that patients who smoke have the need and the right to satisfy their nicotine need in the hospital because even healthcare professionals smoke during working hours	Strongly disagree	6 (10.7)
	Disagree	2 (3.6)
	Neither agree nor disagree	19 (33.9)
	Agree	10 (17.9)
	Strongly agree	19 (15.4)
Absolute respect of the smoking ban during working hours to smoking healthcare workers would bring nervousness and stress and their productivity at work would be reduced	Strongly disagree	1 (1.8)
	Disagree	2 (3.6)
	Neither agree nor disagree	10 (18.2)
	Agree	6 (10.9)
	Strongly agree	36 (65.5)

It was found that there is a significant difference in agreement with the statement *„Smoking is a social disease“* in relation to professional education (H=19.467; P<0.001). Respondents with higher education showed a significantly higher level of agreement with the statement than respondents with secondary professional qualification (SPQ) (P<0.001). There is also a significant difference with the statement *„Smoking is significant „time waster“ at work“* (H=7.843; P=0.02). Respondents with higher education showed significantly higher agreement with the statement than respondents with secondary professional qualification (P=0.01).

There is also a significant difference with the statement *„Healthcare professionals should be a role model to patients regarding the consumption of cigarettes“* (H=18.394; P<0.001). Respondents with university professional qualifications (UPQ) showed significantly higher agreement with the statement than respondents with secondary professional qualifications (P<0.001) and respondents with post-secondary school qualifications (PSSQ) compared to the respondents with secondary professional qualifications (P=0.04) (Table 6).

Table 6. Attitudes to smoking with regard to professional qualifications level

		Median (interquartile range)	H†	P*
Smoking is a social disease	SPQ	3 (2 – 4)	19.467	<0.001**
	PSSQ	4 (3 – 5)		
	UPQ	5 (4 – 5)		
Smoking is a significant “time waster“ at work	SPQ	3 (1 – 5)	7.843	0.02*
	PSSQ	3 (1 – 5)		
	UPQ	4 (3 – 5)		
Passive smoking is just as harmful to health as active smoking	SPQ	4 (3 – 5)	5.037	0.08
	PSSQ	4 (3,5 – 5)		
	UPQ	5 (4 – 5)		
I do not believe that smoking significantly impairs health	SPQ	3 (1 – 5)	3.919	0.14
	PSSQ	2 (1 – 3)		
	UPQ	1 (1 – 5)		
Pictures of sick organs on the cigarette packs can dissuade a person from smoking	SPQ	1 (1 – 3)	0.264	0.87
	PSSQ	1 (1 – 2,5)		
	UPQ	1 (1 – 3)		
An increase in the price of cigarettes can reduce the number of smokers	SPQ	3 (1 – 3)	2.191	0.33
	PSSQ	2 (1 – 3)		
	UPQ	3 (1 – 4)		
Healthcare professionals should be a role model to patients regarding the consumption of cigarettes	SPQ	3 (2 – 5)	18.394	<0.001**
	PSSQ	4 (3 – 5)		
	UPQ	5 (4 – 5)		

† Kruskal-Wallis test

* P<0.01; ** P<0.001

It was found that there was a significant difference in agreement with the statement *„If I have a patient who is a smoker and has some consequences of smoking, I have the urge to stop smoking“* in relation to professional qualifications (H=7.862; P=0.02). Respondents with completed university professional qualifications showed a significantly higher level of agreement with this statement than respondents with completed secondary professional qualifications (P=0.01). There was also a significant difference for the statement *„I am burdened by smoking“* (H=10.391; P=0.006). Respondents with completed university professional qualifications agreed with this statement significantly more often than respondents with completed secondary professional qualifications (P=0.006) and post-secondary school qualifications (P=0.02) (Table 7).

Table 7. Smokers' attitudes to smoking and smoking at work with regard to professional qualifications level (I part)

		Median (interquartile range)	H†	P*
I intend to quit smoking	SPQ	3 (1 – 4)	1.262	0.53
	PSSQ	3.5 (1.5 – 4.75)		
	UPQ	3.5 (2.5 – 5)		
I would not allow my underage child to smoke	SPQ	4.5 (3 – 5)	2.022	0.36
	PSSQ	4.5 (2.5 – 5)		
	UPQ	5 (4.5 – 5)		
I try to show patients the importance of quitting smoking for their health	SPQ	3 (2 – 5)	3.390	0.18
	PSSQ	3 (1.25 – 4.75)		
	UPQ	4 (4 – 5)		
If I have a patient who is a smoker and has some consequences of smoking, I have the urge to stop smoking	SPQ	3 (1 – 3)	7.862	0.02*
	PSSQ	3.5 (1.5 – 4)		
	UPQ	4.5 (3 – 5)		
I am burdened by smoking	SPQ	3 (1 – 4)	10.391	0.006**
	PSSQ	2.5 (1.25 – 3)		
	UPQ	5 (4 – 5)		

† Kruskal-Wallis test
* P<0.01; ** P<0.001

It was found that there was a significant difference in agreement with the statement *„Passive smoking is just as harmful to health as active smoking“* in relation to the age of the respondents (H=11.733; P=0.01). Respondents aged 31 to 40 years showed a significantly higher level of agreement with this statement than respondents aged 41 to 50 years (P=0.01). There was also a significant difference for the statement *„I do not believe that smoking significantly impairs health“* (H=9,808; P=0,04), where the youngest respondents aged 18 to 30 answered significantly more frequently that this was not the case (Table 8).

Table 8. Attitudes to smoking in relation to the age

		Median (interquartile range)	H†	P*
Smoking is a social disease	18 to 30	4 (3 – 5)	5.868	0.20
	31 to 40	3.5 (3 – 5)		
	41 to 50	4 (3 – 5)		
	51 to 60	3 (1.5 – 5)		
	> 60	3 (1 – 3)		
Smoking is a significant “time waster“ at work	18 to 30	3 (2 – 5)	0.763	0.94
	31 to 40	3 (2 – 5)		
	41 to 50	3 (1 – 5)		
	51 to 60	4 (1 – 5)		
	> 60	4 (1 – 4.5)		
Passive smoking is just as harmful to health as active smoking	18 to 30	4 (3 – 5)	11.733	0.01*
	31 to 40	3 (3 – 5)		
	41 to 50	5 (4 – 5)		
	51 to 60	5 (4 – 5)		
	> 60	5 (3 – 5)		
I do not believe that smoking significantly impairs health	18 to 30	2 (1 – 3.75)	9.808	0.04*
	31 to 40	1.5 (1 – 4)		
	41 to 50	3 (1 – 5)		
	51 to 60	3 (1 – 5)		
	> 60	5 (3.5 – 5)		
Pictures of sick organs on the cigarette packs can dissuade a person from smoking	18 to 30	1 (1 – 2)	4.467	0.34
	31 to 40	1.5 (1 – 3)		
	41 to 50	1 (1 – 3)		
	51 to 60	1 (1 – 2.5)		
	> 60	1 (1 – 2)		
An increase in the price of cigarettes can reduce the number of smokers	18 to 30	2.5 (1 – 3)	1.571	0.81
	31 to 40	2.5 (1 – 4)		
	41 to 50	3 (1 – 3)		
	51 to 60	3 (1.5 – 4.5)		
	> 60	2 (1 – 3.5)		
Healthcare professionals should be a role model for patients regarding cigarette consumption	18 to 30	3 (2.25 – 5)	0.707	0.95
	31 to 40	3.5 (2 – 5)		
	41 to 50	3 (3 – 5)		
	51 to 60	3 (1.5 – 5)		
	> 60	3 (2 – 5)		

† Kruskal-Wallis test
* P<0.01; ** P<0.001

It was found that there was a significant difference in agreement with the statement *„Smoking is a social disease“* in relation to the smoking status of the respondents (H=8,970; P=0,01). Non-smokers showed a significantly higher level of agreement with this statement than smokers (P=0.01). There was also a significant difference for the statement *„Smoking is a significant "time waster" at work“* (H=9,808; P=0,04). Smokers showed significantly lower agreement with this statement than non-smokers (P<0.001) and former smokers (P=0.001). There was also a significant difference for the statement *„Passive smoking is just as harmful to health as active smoking“* (H=18.081; P<0.001).

Smokers showed significantly lower agreement with this statement than non-smokers(P<0.001) and former smokers (P=0.02). There was also a significant difference for the statement *„I do not believe that smoking significantly impairs health“* (H=7.389; P=0.02). Smokers showed a significantly higher level of agreement with this statement than the former (P=0.04). There was also a significant difference for the statement *„Healthcare professionals should be a role model for patients regarding cigarette consumption“* (H=9.342; P=0.009). Smokers showed a significantly lower level of agreement with this statement than non-smokers (P=0.007) (Table 9).

Table 9. Attitudes to smoking in relation to smoking status

		Median (interquartile range)	H†	P*
Smoking is a social disease	Non-smoker	4 (3 – 5)	8.970	0.01*
	Former smoker	4 (3 – 5)		
	Smoker	3 (2 – 4)		
Smoking is a significant "time waster" at work	Non-smoker	4 (3 – 5)	31.227	<0.001**
	Former smoker	5 (3 – 5)		
	Smoker	2 (1 – 3)		
Passive smoking is just as harmful to health as active smoking	Non-smoker	5 (4 – 5)	18.081	<0.001**
	Former smoker	5 (4 – 5)		
	Smoker	3 (3 – 5)		
I do not believe that smoking significantly impairs health	Non-smoker	1.5 (1 – 4.5)	7.389	0.02*
	Former smoker	1 (1 – 3)		
	Smoker	1 (1 – 2)		
Pictures of diseased organs on cigarette packets can discourage smoking	Non-smoker	1 (1 – 2)	4.209	0.11
	Former smoker	2 (1 – 3)		
	Smoker	1 (1 – 2)		
An increase in the price of cigarettes can reduce the number of smokers	Non-smoker	2 (1 – 4)	0.162	0.92
	Former smoker	3 (1 – 4)		
	Smoker	3 (1.25 – 3)		
Healthcare professionals should be a role model for patients regarding cigarette consumption	Non-smoker	4 (3 – 5)	9.342	0.009**
	Former smoker	3 (3 – 5)		
	Smoker	3 (1 – 4)		

† Kruskal-Wallis test

* P<0.01; ** P<0.001

It was found that there was a significant difference in the statement *„Smoking is a significant "time waster" at work*“ in relation to the number of cigarretes consumed by the respondents (H=31,868; P<0,001). Non-smokers showed a significantly higher level of agreement with this statement than smokers who consume less than 10 cigarettes per day (P<0.001). There was also a significant difference for the statement *„Passive smoking is just as harmful to health as active smoking*“ (H=19.251; P<0.001). Non-smokers showed significantly higher agreement with this statement than smokers who consume less than 10 cigarettes per day (P=0.001). There was also a significant difference for the statement *„I do not believe that smoking significantly impairs health*“ (H=8.995; P=0.02). Non-smokers showed significantly higher agreement with this statement than smokers who consume less than 10 cigarettes per day (P=0.03). There was also a significant difference for the statement *„Healthcare professionals should be a role model for patients regarding cigarette consumption*“ (H=10.086; P=0.01). Non-smokers showed significantly higher agreement with this statement than smokers who consume 10 to 20 cigarettes per day (P=0.04) (Table 10).

Table 10. The attitude towards smoking in relation the number of cigarettes consumed

		Median (interquartile range)	H†	P
Smoking is a social disease	Less than 10	3 (2 – 4)	10.414	0.01*
	10 to 20	3 (1 – 3)		
	21 to 30	2 (2 – 2)		
	Non-smoker	4 (3 – 5)		
Smoking is a significant "time waster" at work	Less than 10	2 (1 – 3)	31.868	<0.001**
	10 to 20	2.5 (1 – 3)		
	21 to 30	1 (1 – 1)		
	Non-smoker	4 (3 – 5)		
Passive smoking is just as harmful to health as active smoking	Less than 10	3 (2 – 5)	19.251	<0.001**
	10 to 20	3 (3 – 5)		
	21 to 30	2 (2 – 2)		
	Non-smoker	5 (4 – 5)		
I do not believe that smoking significantly impairs health	Less than 10	3 (2 – 5)	8.995	0.02*
	10 to 20	3 (1 – 4)		
	21 to 30	1 (1 – 1)		
	Non-smoker	1 (1 – 3)		
Pictures of diseased organs on cigarette packets can discourage smoking	Less than 10	1 (1 – 3)	2.134	0.54
	10 to 20	1 (1 – 2)		
	21 to 30	1 (1 – 1)		
	Non-smoker	1 (1 – 3)		
An increase in the price of cigarettes can reduce the number of smokers	Less than 10	3 (1 – 3)	0.295	0.96
	10 to 20	2.5 (2 – 3)		
	21 to 30	3 (3 – 3)		
	Non-smoker	2 (1 – 4)		
Healthcare professionals should be a role model for patients regarding cigarette consumption	Less than 10	3 (2 – 5)	10.086	0.01*
	10 to 20	3 (1 – 3)		
	21 to 30	3 (3 – 3)		
	Non-smoker	4 (3 – 5)		

† Kruskal-Wallis test

* P<0.01; ** P<0.001

DISCUSSION

Smoking is one of the most studied risk factors in epidemiological studies. However, there is little consensus on how to represent this multidimensional phenomenon. While some studies only report smoking status (never/current/former smoker) (7, 8, 9), other studies provide detailed information on the number of cigarettes or packs smoked per day (intensity) or the duration of smoking (9 - 13), this study covered a wide range of variables in the smoking status itself (first part of the questionnaire).

123 respondents participated in thestudy. Of the total number of respondents, 97 (78.9 %) were female, 40 (32.5 %) were between 18 and 30 years old, 74 (60.2 %) of respondents were nurses by profession, and 83 (67.5 %) had a secondary professional qualification. Of the total number of respondents, 56 (45.5 %) smoke, 23 (18.7 %) have tried to quit smoking once or twice, 39 (31.7 %) consume factory-made cigarettes, 43 (35 %) consume less than 10 cigarettes and 22 (17.9 %) leave their workplace to smoke two to three times. The results of similar study of 512 subjects show that 25.8 % of respondents were smokers, 19 % former smokers and 55.2 % non-smokers. Three quarters expressed a desire to quit smoking within 6 months. Addiction and enjoyment were cited as the main reasons for continuing to smoke, and health reasons were the main reasons for smokers to quit (9). On the other hand, in this study 19 (33,9 %) smokers neither agreed nor disagreed with the statement that they want to quit smoking, but 30 (53,6 %) of them would not allow their underage child to smoke, 17 (30.4 %) responded that they try to show their patients how important it is to quit smoking. The harmfulness of smoking is well known, and education raises awareness of the health risks of smoking. Accordingly, this study found statistically significant differences in the responses of respondents in relation to professional qualification. Respondents with higher professional qualifications were significantly more likely to state that smoking is a social disease ($P<0.001$), that smoking is time robber at work ($P=0.02$), and that they believe that as healthcare professionals they should be role models in in terms of cigarette consumption ($P<0.001$) than the respondents with secondary professional qualification. Respondents with higher education are significantly more likely to be burdened by smoking ($P=0.006$).

In another similar study with a sample of 169 respondents, 22 % of respondents were smokers. Most staff were not in favor of a complete smoking ban for staff, patients or visitors. Smoking habits and occupation had an influence on responses. Smoking nurses were more lenient in their attitude towards smoking on the wards than non-smokers (11). In this study 19 (33.9 %) of the respondents stated that they neither agree nor disagree with the statement that smoking patients have the need and the right to satisfy their nicotine cravings in hospital because smoking healthcare professionals who smoke do so during working hours, and 36 (65.5 %) of them fully agreed that absolute compliance with the smoking ban during working hours would make smoking healthcare professionals nervous and stressed and reduce their work productivity. McKenna and ass. found that 68.4 % of nurses who had previously smoked increased their tobacco use after starting work in healthcare institutions (14). The other study by McKenna et al reported on reasons nurses gave for smoking. Work pressure was identified as the third reason (5,32 ± 3,23), after addiction (7,13 ± 3,1) and enjoyment (6,56 ± 2,84) (15). Tselebis and ass. Investigated the anxiety of medical staff and their smoking habits and found that smokers' anxiety correlated strongly and positively with their daily quota of cigarettes and that smoking cigarettes significantly calmed nurses at work (16). In this study as many as 78.6 % (44) of respondents said that smoking at the work calmed them down.

In addition, a study of 1 341 respondents showed that most healthcare workers recognize the risks of tobacco smoking (51.9 %), but more than half (53.7 %) are not in favor of a complete smoking ban for healthcare workers, patients or visitors. They believed that patient behavior would worsen if they were not allowed to smoke. Non-smokers who made up the majority of total sample (67.2 %), were more concerned about the effects of tobacco smoke and had a more restrictive attitude towards smoking by staff and visitors than respondents who were smokers (17). Just as in this study where non-smokers had a more restrictive attitude towards smoking in the workplace. Some respondents in the aforementioned study (23), mainly smokers felt that patients should not be encouraged to stop smoking because it causes them additional stress on top of the stress of being ill and hospitalised. Respondents who smoked felt that it was convenient for them to smoke with patients in order to create an additional relationship of trust and to be able to discuss patients' problems in those moments. In contrast, 34 % of the doctors surveyed were of the opinion that staff should not smoke with patients. These findings from mentioned studies, including our own, suggest that nurses/technicians and doctors who smoke are less willing to take on the role of health promoter with patients who smoke.

While cigarette consumption is at its lowest level ever, the use of electronic cigarettes has suddenly increased, especially among young people who are are at the highest risk of lifelong nicotine addiction, even after the ban on the use of tobacco products in all institutions in the Republic of Croatia. In this study 23 (25.5 %) of respondents stated that they use vaporizers/e-cigarettes, and the highest number of respondents was in the youngest age group of 18 to 30 years. Electronic cigarettes (e-cigarettes or vaporizers) are portable devices that work by heating a liquid that usually contains nicotine and flavors. E-cigarettes allow nicotine to be inhaled through the vapor instead of smoke. Since they do not burn tobacco, e-cigarette users are not exposed to the same levels of chemicals that can cause disease in people who

smoke regular cigarettes. The use of e-cigarettes is known as '*vaping*'. Many people use e-cigarettes to quit smoking tobacco (18). The study by Fernandez-Garcia and associates from 2020 included 1469 nurses who were undergoing further training at seven universities. The results of their study showed that the consumption of tobacco predominated in relation to the consumption of electronic cigarettes in all the locations studied. The use of e-cigarettes was nominal, as they could not find a single participant who used e-cigarettes (19), just like the study conducted in Italy in 2016 (20) in which the use of e-cigarettes among nursing students was not significant. However, these results contradict the earlier studies. Namely, the most recent European study on the use of e-cigarettes in the European Union, which covered 28 countries, showed that 1.8 % of the adult population regularly used e-cigarettes. The prevalence of e-cigarette use has increased from 7.2 % in 2012 to 15 % in 2017. The younger population living in urban areas with availability to high level of education has been found to be associated with e-cigarette use (21).

Although it is not allowed, even prohibitted by the law of Republic of Croatia, this study revealed that as many as 43.9 % (N=54) of respondents smoke at their workplace, i.e. leave their workplace to smoke. Of the total number of respondents who described themselved as smokers (N=56), 44 (78.6 %) stated that smoking at the workplace calms them down and relieves their stress, 16 respondents (28,6 %) neither agreed nor disagreed with the statement that they feel uncomfortable because they feel the cigarette smoke after smoking, and they know that others feel it, too. Several studies suggest that non-smoking healthcare institutions, and other non-smoking workplaces, can encourage healthcare workers to quit smoking (22, 23). However, hospitals can be a potential factor in medical staff smoking to cope with stressful situations caused by the environment. There is no clear link between the work environment and tobacco use among healthcare professionals, as many healthcare professionals started smoking before they began their careers. Older studies examining the smoking behaviour of helthcare professionals have attempted to prove that smoking as a mechanism for coping with stress is related to the environment or their workplace (24). Studies were also found that argued that majority of healthcare professionals are women whose smoking is related to work stress, job dissatisfaction and lack of social support, lack of control over one's work, and that stress and high expectations promote smoking in women – healthcare professionals (25, 26).

The comparison by gender and smoking trend among healthcare workers and future healthcare professionals (nursing students) is a constant focus of the studies. The global smoking rate among the nursing students and other healthcare professionals shows a gender-specific increase of 5 to 6 % in favor of men. Data from the European Health Survey show that proportion of male smokers is 21.4 % and of female smokers is 15.5 % (27). Statistical differences between genders in prevalence were also found in the study conducted in 2016 in which the consumption of nicotine products was higher in men than in women (28). This is similar to the study conducted at a Spanish university which found that the gender determines the development of risk behaviours and more frequent use of tobacco products in male nursing students compared to female students (29). Our own study showed that there were no significant differences in attitudes to smoking in relation to respondents' gender, nor in smokers' attitude to smoking and to smoking at workplaces in relation to their gender.

Study by Fernandez included 1235 healthcare professionals (435 doctors and 800 nurses). Among them 43.07 % were smokers, with higher proportion (47.68 %) of nurses working in hospitals (46.68 %). On the one hand, tobacco consumption was lower among doctors aged 20 to 30 years (22.88 %) and on the other hand, nurses in the twenties made up a large group of smokers. Of the total sample 18.3 % were smokers younger than 30 years, 2.93 % of female respondents smoked without caring if patients were around, and 14.94 % of them believed that smoking in hospital corridors should be allowed. 90,84 % of female smokers stated that they usually smoke in rooms like storerooms because they are not allowed to leave the departments, while 30.37 % of them responded that special smoking rooms are available at their workplaces (30). In our own study it was found that there is a significant difference in agreement with the statement *„Passive smoking is as harmful to health as active smoking“* in relation to the age (P=0.01). In the group of respondents aged 31 to 40 years agreement with this statement waas significantly higher than in the group of respondents aged 41 to 50 years (P=0.01). There was also a significant difference with the statement *„I do not believe that smoking significantly impairs health“* (P=0.04), where younger respondents agreed with this statement more often than older respondents.

Finally, there is an urgent need for implementing effective measures against the use of nicotine products among healthcare professionals. Indeed, it is believed that reduction in the number of smokers among healthcare professionals would increase credibility of anti-smoking campaigns which would have impact on public. Healthcare professionals' attitudes to smoking affect their role of healthcare workers as future promoters of a healthy lifestyle. However, it was quite devastating to find in this study that only 35,8 % of respondents stated their intention to quit smoking and 15,8 % of respondents answered that they had no such intention.

CONCLUSION

This study has shown that work environment can be a barrier to smoking cessation and a potential obstacle to maintaining a previous smoking cessation attempt for healthcare professionals. Although the results of the study on the attitudes of healthcare professionals in General

county hospital Vinkovci towards the nicotine products use show that respondents are aware of the harmfulness of smoking and would not allow their children to smoke, they are still more inclined to smoke at work, take smoking breaks and allow the patients to smoke.

The frequency of nicotine products consumption among healthcare professionals in GCH Vinkovci is high in the workplace, namely 17. 9% of respondents smoke two to three times during working hours, 12.2% of them smoke about five times and 13, 8% go to smoking breaks more than six times. Overall, 43,9 % of the total sample smoke at the work. High percentage of those smoking at their workplace makes smoking not only harmful, but also illegal.

The responses of respondents in this study in relation to their age show that younger respondents have more liberal views on smoking and the harms of smoking because they have not yet experienced health risks and consequences of smoking.

With regard to gender, no statistically significant difference was found in the respondents' answers, while there were sharp differences in the respondents' opinions according to smoking status (smokers/non-smokers). It is logical that smokers are more inclined to allow patients to use nicotine products. They are bothered by the fact that they smoke, but they report that it helps them to relax at work. Nonsmokers, on the other hand, have an extremely strict attitude to the smoking ban in the workplace, they would not allow patients to smoke, they do not believe that smokers can relax in this way and they do not view smoking breaks positively.

With regard to the frequency of consumption of nicotine products, the respondents’ answers do not indicate statistical significance in their attitudes and opinions. In terms of professional qualifications it was found that respondents with higher professional qualifications were more likely to think that smoking is harmful to health, that smoking is a social disease, that it is time waster at work, that healthcare professionals should be a role model and not consume cigarettes, and that they are significantly more burdened by smoking than respondents with secondary education. There is a logical progression of answers in relation to professional qualifications, as higher levels of education are thought to impact on greater knowledge of the harms of smoking, the importance of quitting and increasing of preventative activities of healthcare professionals in relation to not smoking.

It is of considerable importance to conduct further research to assess the consumption of nicotine products by healthcare professionals and possible motives that could lead to quitting smoking, as well as a possible increase in smoking rates among nurses after employment. Such well-designed epidemiological studies will help to identify the potential for smoking cessation among healthcare professionals.

LITERATURE

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THE KNOWLEDGE, ATTITUDE AND PRACTICE OF STUDENTS OF THE FACULTY OF HEALTH STUDIES, RELATED TO PALLIATIVE CARE

ZNANJE, STAVOVI I PRAKSA STUDENATA FAKULTETA ZDRAVSTVENIH STUDIJA VEZANIH ZA PALIJATIVNU NJEGU

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SAŽETAK

Palijativna njega je pristup koji poboljšava kvalitet života pacijenata i njihovih porodica koji se suočavaju sa problemima povezanim sa bolestima opasnim po život. Spriječava i ublažava patnju kroz ranu identifikaciju, pravilnu procjenu i liječenje bola i drugih problema, bilo fizičkih, psihosocijalnih ili duhovnih problema. Palijativni pristup zahtijeva holistički pristup pacijentu, gdje se smanjenje patnje i boli postavlja kao primarni cilj radi poboljšanja kvalitete života. Medicinska sestra igra ključnu ulogu u palijativnoj njezi kao višestruki aktivni sudionik. Njena uloga obuhvata neprekidno provođenje zdravstvene njege, koordinaciju i vođenje procesa njege, te odgovornost za planiranje, provođenje i evaluaciju zdravstvene njege. ***CILJ ISTRAŽIVANJA:*** *bio je ispitati znanje studenata o palijativnoj njezi te utvrditi stavove ispitanika o pružanju usluga palijativne njege. Ovo istraživanje je ispitalo znanje o palijativnoj njezi među studentima treće i četvrte godine studija zdravstvene njege na Fakultetu zdravstvenih studija. Na uzorku od 43 studenta, rezultati su pokazali da studenti posjeduju dobro znanje o palijativnoj njezi i jasno razumiju svoju buduću profesionalnu ulogu u ovom području.* ***KLJUČNE RIJEČI:*** *palijativna njega, zdravstvena njega, medicinska sestra, uloga BA, sestrinske intervencije, specijalistička palijativna njega*

ABSTRACT

Palliative care is an approach that improves the quality of life of patients and their families facing issues related to life-threatening illnesses. It prevents and alleviates suffering by identifying and properly assessing physical, psychosocial or spiritual problems and treating pain. The palliative approach requires a holistic approach to the patient, with the alleviation of suffering and pain as the primary goal to improve quality of life. Nurses play a key role in palliative care as they are actively involved in multiple ways. Their role includes the continuous implementation of healthcare, the coordination and management of care processes, and responsibility for the planning, implementation and evaluation of healthcare. ***THE AIM OF THE STUDY:*** *was to investigate students' knowledge of palliative care and to determine their attitudes towards providing palliative care services. This study explored knowledge of palliative care among third and fourth year nursing students at the Faculty of Health Studies. With a sample of 43 students, the results showed that students have a good understanding of palliative care and clearly grasp their future professional role in this field.* ***KEYWORDS:*** *palliative care, healthcare, nurse, BA role, nursing interventions, specialized palliative care*

INTRODUCTION

Palliative care is an approach that improves the quality of life of patients and their families facing problems related to life-threatening illnesses. It prevents and alleviates suffering by identifying and properly assessing physical, psychosocial or spiritual problems and treating pain. It is estimated that 56.8 million people need palliative care each year, most of them in low- and middle-income countries, including 25.7 million of people who need palliative care in the last year of life (1). The development of palliative medicine in the 1960s in the UK and in the 1970s in the USA and Canada represents a crucial turning point in medical culture, and the movement was led by outstanding visionaries such as Cicely Saunders. Saunders was the pioneer of the hospice movement and left an indelible mark with her work (2). The palliative approach requires a holistic approach to the patient, with the alleviation of suffering and pain as the primary goal to improve quality of life. Nurses play a key role in palliative care as they are actively involved in multiple ways. Their role includes the continuous implementation of healthcare, the coordination and management of care processes, and responsibility for the planning, implementation and evaluation of healthcare. Ongoing assessment, evaluation and education of patients and families, as well as collaboration with other members of the interdisciplinary team, are key elements in palliative care nursing. This type of care is essential and important in all phases of the illness, from the acute to the terminal phase (3).

The basic principles of palliative care are proposed by the European Association for Palliative Care (EACP), and they advocate that palliative care:

- Recognizes and affirms life and regards dying as a normal process,
- Does not hasten death, but also does not delay it (natural end)
- Ensures the relief of physical pain and other unpleasant difficult symptoms
- Integrates the psychological and spiritual components of care
- Provides a support system to help patients live as actively as possible
- Provides a support system for the families of ill patients during illness, and after death in grief (4).

According to European Association for Palliative Care (EAPC) ten key competencies of nurses in specialized palliative care are recognized:

1. Applying the key components of palliative care in the environment in which patients and their families find themselves.
2. Enabling the sick person to be as comfortable as possible throughout their illness, to be free from pain and other symptoms of illness, to provide help and support to the family.
3. Meeting the psychological needs of the sick person.
4. To meet the social needs of the sick person.
5. To meet the spiritual needs of the sick person.
6. Meeting the needs of family members in relation to the short, medium and long term goals caring for the sick person and in relation to their personal difficulties and needs in caring and bereavement.
7. Responding to the challenges related to clinical and ethical doubts in palliative care.
8. To coordinate general care and interdisciplinary teamwork in all settings where palliative care is provided.
9. To develop interpersonal and communication skills required in palliative care.
10. To develop self-awareness and continuous professional improvement (5).

Practice-based activities are the core of nursing. The main responsibility of nurses and technicians in palliative care is the care of the patients.

The role of nurses in palliative care encompasses six mutually interwoven and discrete dimensions, each of which has its own significance.

It includes assessing patients to understand their needs, connecting with patients and their families to provide support, empowering patients to cope with the challenges of illness, providing care and support with activities of daily living, helping patients find purpose and meaning, and preserving patients' integrity (6).

HYPOTHESES

WORK HYPOTHESIS:

H1:

Third and fourth year students of the Healthcare study at the Faculty of Health Studies have a good knowledge of palliative care and are aware of their future professional role in palliative care.

Null hypothesis:

H2:

Third and fourth year students of the Healthcare study at the Faculty of Health Studies do not have a good knowledge of palliative care and are not aware of their future professional role in palliative care.

RESEARCH AIMS

1. To examine the students' knowledge of palliative care
2. To determine attitude of respondents on providing the service of palliative care
3. To examine the knowledge of practice in providing palliative care
4. To show the role of healthcare bachelors in the process of providing palliative care

MATERIAL (RESPONDENTS) AND RESEARCH METHODS

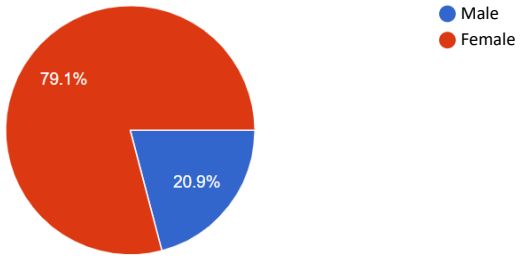
RESPONDENTS

The study was conducted among the third and fourth year students of Healthcare studies at the Faculty of health studies of University in Sarajevo. The total number of respondents who participated in the study was 43.
Research methods

The study was descriptive and cross-sectional. An author questionnaire was used for the study based on the review of professional and scientific literature. The questionnaire was anonymous, and it was not possible to determine the identity of subjects from the responses received. The researcher guarantees the security - confidentiality of the data. The ethical regulations regarding the knowledge of the purpose of the research were observed.
No financial investment was required for this study.

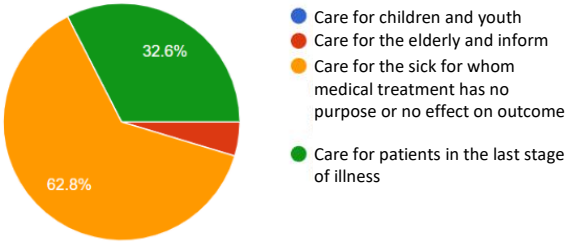
RESEARCH RESULTS

The study was conducted among the third and fourth year students of Healthcare studies at the Faculty of health studies of University in Sarajevo. The total number of respondents who participated in the study was 43.



Graph 1. Distribution of respondents in accordance with gender

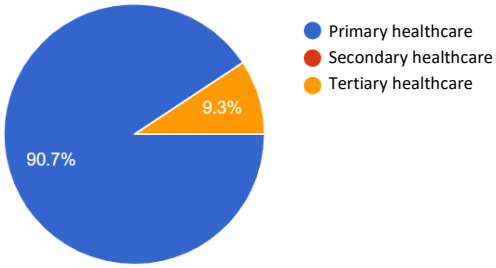
The following graph shows the number of answers to the question “What is palliative care?”.



Graph 2. Data display of respondents’ answers to the question 1

The obtained results show that 62.8 % of the students responded that it is the care of patients for whom medical treatment has no purpose, i.e. a condition for which curative treatment has no purpose or no effect on outcome, 32.6 % of the students answered that it is the care of patients in the last stage of illness while 4.7 % of them answered that it is the care of the elderly and infirm. The correct answer is that it is the care of patients for whom medical treatment serves no purpose, i.e. a condition for which curative treatment serves no purpose or has no effect on the outcome.

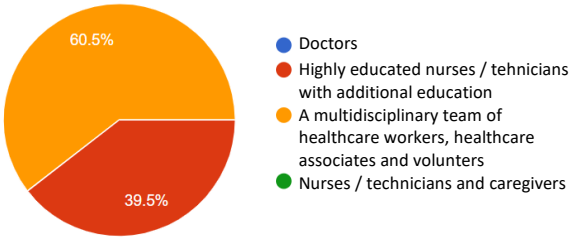
Graph 3 shows the answers to the second question which was: “What domain does the palliative care belong to?”.



Graph 3. Data display of respondents’ answers to the question 2

The results show that 90.7 % of the students answered that it belongs to the primary level of healthcare while 9.3 % answered that it belongs to the tertiary level of healthcare, and the correct answer was the primary level of the healthcare.

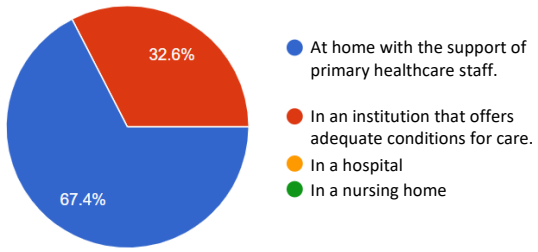
Graph 4 shows the number of correct answers to the third question which was: “Who should organise and conduct



Graph 4. Data display of respondents’ answers to the question 3

The acquired results indicate that 60.5 % of the students answered that palliative care should be carried out by a multidisciplinary team of healthcare workers, healthcare associates and volunteers, while 39.5 % answered that highly educated nurses/technicians with additional education should do it. The correct answer is the multidisciplinary team of healthcare workers, healthcare associates and volunteers.

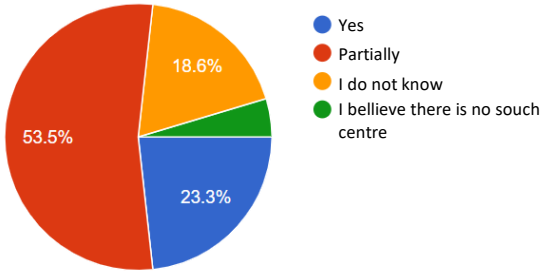
Graph 5 shows the number of correct answers to the fourth question that was: “How best to organise the palliative care?“



Graph 5. Data display of respondents’ answers to the question 4

The results show that 67.4 % of students answered that palliative care is best organized at home with the support of primary healthcare staff while 32.6 % answered that it is best to provide it in an institution that offers adequate conditions for care. The correct answer was at home with the support of primary healthcare professionals.

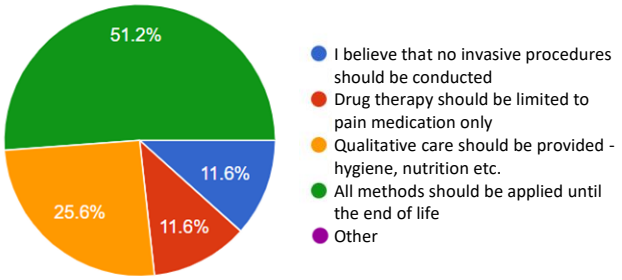
Graph 6 shows the number of correct answers to the fifth question that was: “Do you know of any facilities or palliative care centres in your area?“.



Graph 6. Data display of respondents’ answers to the question 5

The given responses indicate that 53.5 % answered partially, 23.3 % that they do not know, 23.3 % that they do know while 4.7 % believe that there is no such centre in their area. Do you know any institutions or palliative care centres in your surrounding area?
If the answer was YES, they were asked to list the centres or facilities they know of in their area. 5 of them answered that it is Palliative Clinic Miljacka, 1 answer was Hospice Ilidža and 1 answer was Hospice My clinic Blažuj.

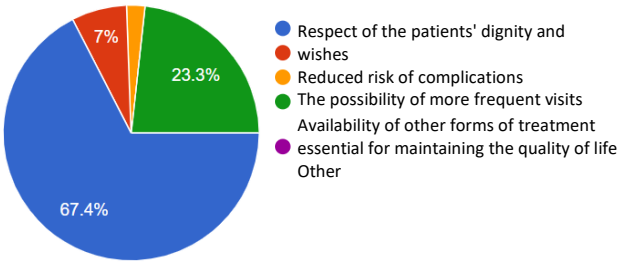
Graph 7 shows the number of correct answers to the sixth question that was: “What is your attitude towards the implementation of invasive diagnostic and therapeutic procedures in palliative patients?”.



Graph 7. Data display of respondents’ answers to the question 6

The acquired results indicate that 51.2 % of the students believe that all methods should be applied until the end of life, 25.6 % think that qualitative care should be provided – hygiene, nutrition etc., 11.6 % think that no invasive procedures should be conducted while 11.6 % of the students believe that drug therapy should be limited to pain medication only.

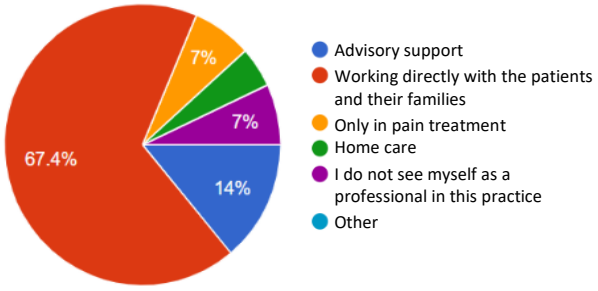
Graph 8 shows the number of correct answers to the seventh question that was: “What would be the benefit of palliative treatment in a facility other than a hospital



Graph 8. Data display of respondents’ answers to the question 7

The results show that 67.4 % of the students believe that it is the respect of patients’ dignity and wishes, 23.3 % that the availability of other forms of treatment is essential for maintaining the quality of life, 7 % believe that it is reduced risk of complications, while 2.3 % think that the benefit lies in the possibility of more frequent visits. all methods should be applied to the end of the life.

Graph 9 shows the number of correct answers to the eighth question that was: “How do you see your role as BA of healthcare in palliative care?”.



Graph 9. Data display of respondents' answers to the question 8

The acquired results indicate that 67.7 % of students answered that they see their role in direct work with the patients and their families, 14 % as advisory support, 7 % see themselves only in pain treatment, 7 % of students do not see themselves as professionals in this practice.

DISCUSSION

This study assessed the knowledge of palliative care among the third and fourth year students of Healthcare studies at the Faculty of Health Studies. Using a sample of 43 students, the results showed that students have a good knowledge of palliative care and clearly understand their future professional role in this area, i.e. that they understand the significance of BA in healthcare in palliative care. The results indicate that education programmes on the university have adequately prepared students for work in palliative care, which ensures quality care to patients in the last stages of illness. The results obtained indicate that 67.4 % of students see their role in palliative care as working directly with the patients and their families, 14 % see themselves as providing advisory support, 7 % in pain management, 4,7 % in home care while only 3 students or 7 % do not see themselves in this profession. This result underlines the extent to which students recognize the importance of direct contact with patients and their families in palliative care. It also suggests that students understand a holistic approach to palliative care, that encompasses not only medical aspects but also emotional, social and spiritual needs of patients and their families. This is the key component of palliative care that contributes to improving patients' quality of life. A high percentage of students who see their role as direct work indicate that the educational programme successfully prepares students for the practical aspects of palliative care. This finding may indicate that students have gained adequate practical skills and knowledge of the role of BA in healthcare in palliative care during their studies.

Since alleviating patients' suffering is the main determinant of palliative care, nurses should be aware of all symptoms and how to suppress them. Nurses are in close contact with the patient and his/her family. Their special skill and task is to listen to the patient, assess their needs, respond and build a trusting relationship which is extremely important in care of palliative patients. They are an important part of the multidisciplinary team and knowledge of the principles of teamwork is very important in carrying out this role. As nurses are in constant contact with patients and their families, they should be trained to build a collaborative relationship with patients and their families and respect them as important partners in planning care and choosing certain procedures. Although on a small sample, the research results provide a valuable insight into the effectiveness of training programmes and highlight areas that need further development and advancement.

In the study conducted by Sandra which evaluated nurses' knowledge of palliative care in hospitals, the average level of knowledge was 20.4 % (29) out of a total of 142 respondents. This is a major problem as nurses are one of the key participants in palliative care and have a huge responsibility to provide good care to patients and their families. Palliative care nurses take care of all patients' needs – they strive to completely suppress pain or significantly reduce it, but also help to suppress other symptoms that sick persons have. According to the results of this study nurses do not know enough about many of these essential components of palliative care and their additional educations in this area is necessary.

As the need for palliative care increases, the need for the adequate education for medical professionals in this area becomes even more important. Despite the need, the knowledge of nursing staff in palliative care is still not satisfactory.

In order to improve the quality of palliative care and provide care to as many patients in need as possible, it very quickly became clear that this could only be achieved through targeted education in nursing and appropriate assessment of the competencies and skills acquired. Since its creation in 1996, the PCQN questionnaire has been used in a large number of studies in hospitals and nursing homes. The authors conducted various types of studies, such as the study with a controlled group (Adriaansen, van Achterberg and Borm, 2005). Hiwot and a group of authors conducted a study in Addis Ababa, Ethiopia on nurses' knowledge of palliative care on a sample of 365 nurses in several hospitals (7).

In 2019, Jiang and associates emphasised in their study that undergraduate nursing students are the main contributors to the future quality of palliative care and therefore the educational part of the programme should be focused on them (8).

The survey was conducted among nursing students in Dubrovnik, 101 respondents took part in the survey. On average, the respondents answered seven out of 20 questions on palliative care correctly, which indicates the importance of additional education in palliative care.

The results among our respondents compared to similar studies by other authors suggest that there is a basic knowledge of palliative care among our respondents that requires further systemic education, especially if the continuation of their work will involve palliative care.

It is important to mention some limitations of this survey. The relatively small sample of students may limit the ability to generalise the results to a broader student population. The study also focused on a single educational institution, which may affect the specificity of the results. Notwithstanding these limitations, the survey results provide valuable insight into the effectiveness of educational programmes and highlight the areas for further development and promotion.

Future research should therefore include a larger and more diverse sample in order to obtain a more comprehensive picture of students' knowledge of palliative care. These types of surveys can help identify best practices and improve healthcare educational programmes. Further support and development of educational programmes can additionally improve the quality of education and preparation of future nurses for work in palliative care, which will directly contribute to better care for patients and support for their families.

CONCLUSIONS

From the results obtained, it can be concluded that 62.8% of students recognize palliative care as the care of patients for whom medical treatment has no purpose, which shows an adequate knowledge of the basics of palliative care.

The majority of students believe that palliative care belongs to the primary level of healthcare while 67.4% of them believe that it is best to provide palliative care in home conditions with the support of primary healthcare professionals.

Third and fourth year nursing students believe that palliative care should be provided by a multidisciplinary team, which was confirmed by 60.5% of the students.

The results show that 67.7% of students see their role as working directly with the patients and their families indicating awareness of their future professional role in palliative care.

The results obtained through the questionnaire designed for this research yielded conclusions that confirmed the working hypothesis. It was proved that third and fourth year students of the Nursing programme at the Faculty of Health Studies have a good knowledge of palliative care and are aware of their future professional role in palliative care. The null hypothesis stating that third and fourth year nursing students at the Faculty of Health Studies do not have a good knowledge of palliative care and are aware of their future professional role in palliative care is thus rejected.

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THE SIGNIFICANCE OF INFORMED CONSENT IN THE PATIENT'S TREATMENT PROCESS

ZNAČAJ INFORMIRANOG PRISTANKA U PROCESU LIJEČENJA BOLESNIKA

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SAŽETAK

Informirani pristanak je ključan aspekt medicinske etike koji integrira osnovne etičke principe u kliničku praksu i odnos prema pacijentima. Ovaj koncept je uveden kako bi se zaštitila prava pacijenata i osiguralo da su dobro informirani o medicinskim postupcima kojima se podvrgavaju. Prvobitno spomenut 1957. godine, informirani pristanak je postao reakcija na povrede autonomije pacijenata, posebice u medicinskim istraživanjima. Danas, model "pacijent u središtu" stavlja pacijenta i njegovu porodicu u središte odlučivanja, naglašavajući njihovu važnost u donošenju zdravstvenih odluka.

Međutim, u praksi, ovaj koncept često se svodi na administrativni čin, gdje pacijenti potpisuju izjave kako bi ljekari bili zaštićeni od pravnih posljedica. Pravilna implementacija informiranog pristanka zahtijeva kompetentnost pacijenta, adekvatnost informacija od strane ljekara, te dobrovoljnost odluke pacijenta. Nedostatak zakonskih propisa na državnom nivou u Bosni i Hercegovini dovodi do razlika u regulisanju prava pacijenata između entiteta i distrikta, ali postoje značajni zakoni u Federaciji BiH koji definiraju prava pacijenata i njihove obaveze u procesu informiranog pristanka.

KLJUČNE RIJEČI: *informirani pristanak, medicinska etika, autonomija, pacijent u središtu, prava pacijenata*

ABSTRACT

Informed consent is a key aspect of medical ethics that integrates fundamental ethical principles into clinical practice and patient relations. This concept was introduced to protect patient rights and ensure they are well informed about the medical procedures they undergo. First mentioned in 1957, informed consent became a response to violations of patient autonomy, especially in medical research. Today, the "patient-centred" model places the patient and their family at the centre of decision-making, emphasizing their importance in making healthcare decisions.

However, in practice, this concept is often reduced to an administrative act where patients sign statements to protect physicians from legal consequences. Proper implementation of informed consent requires patient competence, adequate information provided by physicians, and voluntary patient decisions. The lack of state-level legal regulations in Bosnia and Herzegovina leads to differences in regulating patient rights between entities and districts, but significant laws in the Federation of BiH define patient rights and their obligations in the informed consent process. ***KEYWORDS:*** *informed consent, medical ethics, autonomy, patient-centred, patient rights*

INTRODUCTION

Informed consent is a crucial aspect of medical ethics that links basic ethical principles to clinical practice and patient relations. This practice includes the analysis and evaluation of medical and ethical aspects in issues such as respect for the patient's personality, freedom of thought and choice, protection of patients' rights in medical procedures and biomedical examinations, involvement of relatives, guardians or patient representatives in ethical decision-making, approach to children, the sick and persons with impaired mental capacity, orientation of the patients and subjects to procedures and examinations, and communication between healthcare staff and patients. (1) The concept of informed consent was first mentioned in 1957, when it emerged as a reaction to the violation of patients' autonomy and well-being in doctor-patient relationship, which became particularly visible through the exploitation of patients for the purpose of medical examinations in the 1970s. The paternalistic approach to medicine was replaced by the patient-centred model, which emphasizes that patients and their families should and must be involved in decision making and healthcare policy shaping through close collaboration with healthcare professionals and other healthcare workers. In theory, informed consent is the guarantee of free and autonomous decision making about one's own health and physical integrity. In practice, the basics of the patient-centred model are not clear to most of healthcare institutions around the world. Therefore, in practice, informed consent usually amounts to an administrative act in which patients sign a statement accepting responsibility for the decisions made and protecting the physician from possible legal consequences of unlawful violation of patients' rights and autonomy. Thus, informed consent, which in theory represented an enrichment of the relationship between patient and doctor, became a means of legal processing, both for patients and doctors, and usually contributed to an alienation of the mutual relationship, which should be much more than the letter of the law and the administrative act formulated in advance. (2). Competence is the ability of a person to understand decision-relevant information, to recognise the importance and significance of information in the given situation, to draw conclusions from the information, to make a choice and to express their choice.

If the patient lacks decision-making capacity, the right to decide on their behalf is exercised by the closest family member or the guardian appointed by the court. The adequacy of information is related to the doctor's moral duty to explain to the patient in an understandable way how the intervention will proceed, what its consequences may be, and to point out possible alternatives and their consequences. Good communication between the doctor and the patient has crucial significance for this type of informed consent. Voluntariness means that the patient makes a decision of their own initiative, without influence, coercion, deception or manipulation by others. Voluntariness can easily be violated under the conditions of medical practice, primarily because of the imbalance of knowledge and power between doctors and patients, then with extremely vulnerable patients such as mentally disabled people, psychiatric patients, prisoners, children and homeless people. (3) The concept of informed consent, which respects the will of the individual to decide for themselves whether and for what purpose a medical intervention is carried out on them, is represented in everyday clinical practice today and has a clinical, ethical and legal aspect. The duty to inform patients is seen as an integral part of treatment, and is adapted for each patient while the scope of the duty to inform is a legal issue and the case law of most of the European countries has adopted the so-called "reasonable physician standard" in relation to this duty. Nevertheless, the scope of the information was determined by the goal of informing patients, and giving them the opportunity to make a decision as laypersons about the acceptance (or non-acceptance) of the proposed medical intervention i.e. the examination. As far as the scope of information is concerned, an almost universal rule appears: the less indicated the medical intervention is, the greater the scope of the information must be. Thus, high demands were placed on cosmetic-esthetic procedures, where the doctor must strictly explain the prospects of success and the associated risks, i.e. inform the patient of the reasons for and against the intervention with all its consequences. (4)

HYPOTHESES

WORKING HYPOTHESIS

The citizens of the city of Sarajevo are familiar with the existence, significance and practice of using informed consent for medical procedures in hospitals.

NULL HYPOTHESIS

The citizens of the city of Sarajevo are not familiar with the existence, significance and practice of using informed consent for medical procedures in hospitals.

THE RESEARCH AIMS

1. To investigate the population's knowledge of the implementation of the informed consent procedure for medical procedures in hospitals
2. To investigate the attitude of respondents towards the implementation of the informed consent procedure in hospitals
3. To determine the practice of implementing informed consent for medical procedures in hospitals

MATERIAL AND RESEARCH METHODS

RESPONDENTS

The research was conducted among the residents of the Sarajevo canton. The respondents were selected at random. A total of 150 respondents took part in the survey.

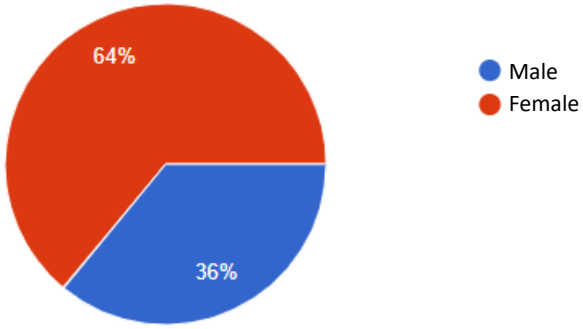
THE RESEARCH METHODS

The research was descriptive and sectional. An author questionnaire was used for the study based on the review of professional and scientific literature. The questionnaire was anonymous, and it was not possible to determine the identity of subjects from the responses received. The researcher guarantees the security - confidentiality of the data. The ethical regulations regarding the knowledge of the purpose of the research were observed.

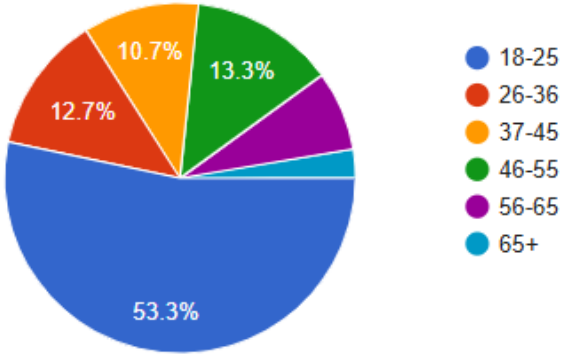
No financial investment was required for this study.

THE RESEARCH RESULTS

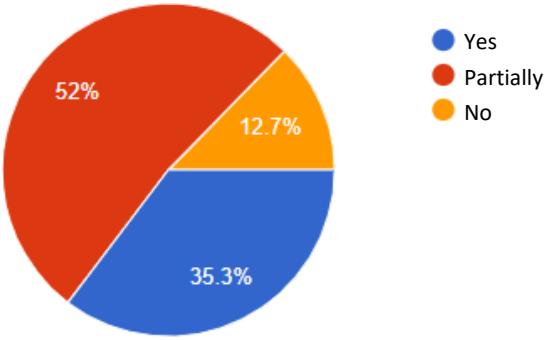
The research was conducted in all population groups. The total number of respondents who participated in the study was 150.



Graph 1. & 2. Data display of the respondents' gender and age



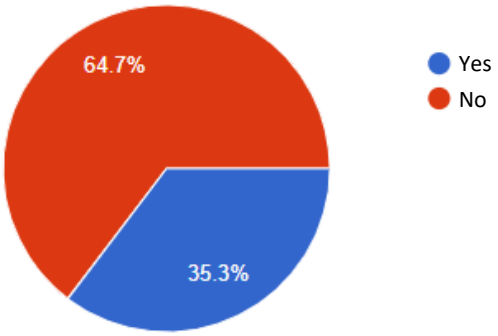
The following data shows the accuracy of the responses to the individual questions, starting with the question 1 which was: ”Are you familiar with the law on patients' rights and responsibilities?”.



Graph 3. Data display of responses to the question 1

The obtained answers show that 52 % of the respondents answered that they were partially aware of the law on patients' rights and responsibilities, while 35.3 % of the respondents answered that they were aware of it, and 12.7 % that they were not at all aware of the law on patients' rights and responsibilities.

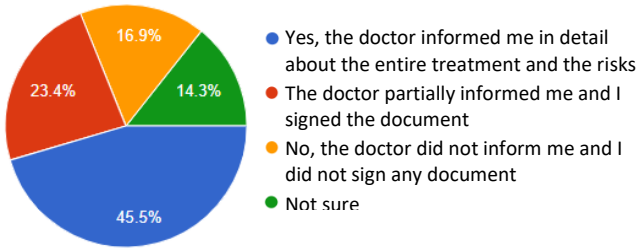
Graph number 4 shows responses to the second question: „ Have you received hospital treatment due to the illness in the last five years?“.



Graph 4. Data display of the responses to the question 2

The obtained results show that 64.7 % of the respondents answered that they had received hospital treatment due to illness in the last five years, and 36.3 % answered that they had not.

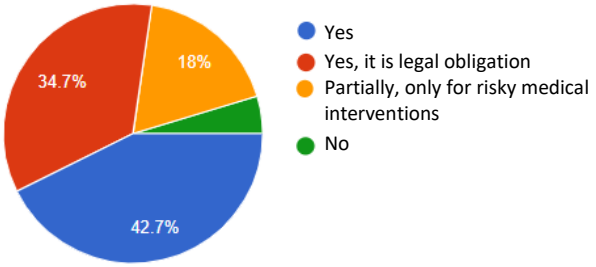
Graph 5 shows the answers to the third question which was: „If you answered YES, did the doctor give you detailed information about the proposed medical procedure and ask for your written consent?“.



Graph 5. Data display of the respondents' answers to the question 3

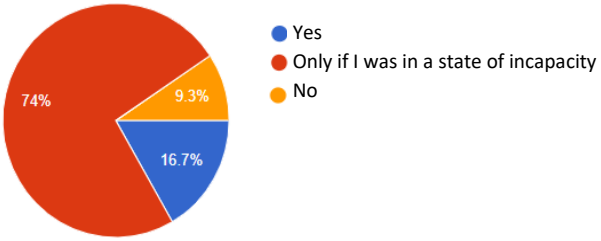
The obtained results show that 45.5 % of the respondents answered that they were fully informed about the entire treatment and the risks, while 23.4 % were only partially informed and then only signed the document. 16.9 % answered that they were not informed and did not sign any document and 14.3 % answered that they were not sure.

Graph number 6 shows the answers to the fourth question: „Do you think it is necessary for the doctor to ask you as a patient for consent for the provision of healthcare services?".



Graph 6. Data display of the respondents' answers to the question 4

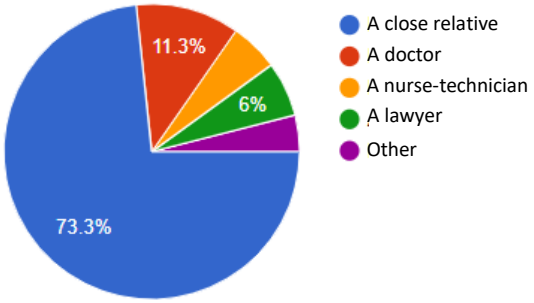
The obtained results show that 42.7 % of the respondents answered that it is necessary for the doctor to ask you as a patient for consent to provide healthcare services, while 34.7 % answered yes, because it is required by law. 18 % of the respondents answered partially, only for risky medical interventions.
Graph 7 shows the answers to the fifth question which was: „Do you think that another person, e.g. your relative, can sign the informed consent on your behalf?".



Graph 7. Data display of the respondents' answers to the question 5

The obtained results show that 74 % of the respondents answered yes, while 16.7 % answered yes, but only if they are in a state of incapacity and 9.3 % of the respondents answered no.

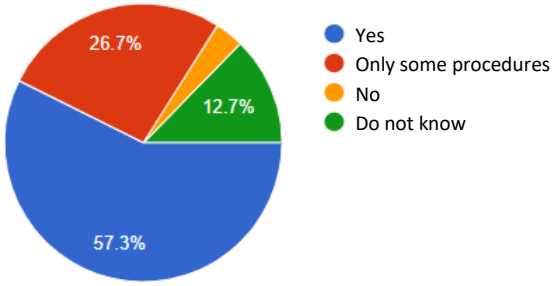
Graph 8 shows the answers to the sixth question: „ In your opinion, who should sign the written consent for a medical procedure in your place in an emergency?".



Graph 8. Data display of the respondents' answers to the question 6

The obtained results show that 73.3 % of the respondents answered that a close relative can sign in their place, while 11.3 % said that a doctor can sign and 6 % that a lawyer can sign.

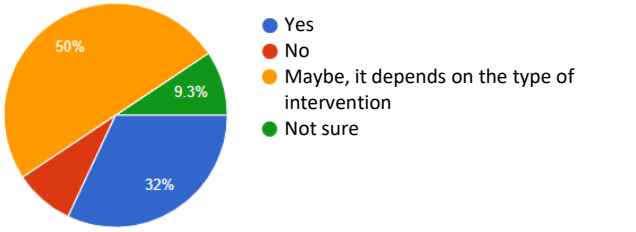
Graph number 9 shows the answers to the seventh question which was: „Do you believe that you have the right to refuse the proposed medical procedure?".



Graph 9. Data display of the respondents' answers to the question 7

Obtained results show that 57.3 % of the respondents answered yes, that they believe they have the right to refuse proposed medical procedures, while 26.7 % of the respondents answered that they have the right to refuse only some medical procedures.

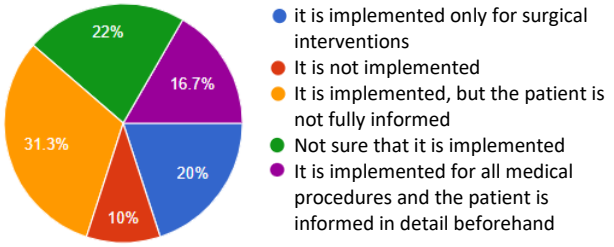
Graph number 10 shows the answers to the eighth question which was: „ Would you take legal action against doctors/healthcare professionals if they performed some medical interventions, without informing you and without obtaining your consent?".



Graph 10. Data display of the respondents' answers to the question 8

The obtained results show that 50 % of the respondents answered maybe, depending on the type of intervention, that they would take legal action against the doctors/healthcare workers if they performed certain medical interventions, without informing them and without obtaining their consent. 32 % of the respondents answered yes and 9.3 % were not sure.

Graph 11 shows the answers to the ninth question which was: „What do you think of the current practice of implementing informed consent?“.



Graph 11. Data display of the respondents' answers to the question 9

The obtained results show that 31.3 % of the respondents answered that informed consent is implemented, but the patients are not informed in detail, while 22 % answered that they are not sure if it is implemented. 20 % of the respondents answered that it is implemented only for surgical procedures, 16.7 % answered that it is implemented for all medical procedures and that patients are informed in detail beforehand. 10 % of the respondents answered that this is not the case.

DISCUSSION

The survey, which was conducted among 150 respondents, assessed their knowledge of rights and informed consent. The results showed that the respondents had a satisfactory level of knowledge on these issues. However, for some questions, a smaller percentage of respondents were found to be unfamiliar with certain aspects of their rights in relation to informed consent. It is also highlighted that respondents feel that doctors, i.e. healthcare professionals do not provide sufficiently detailed information about informed consent. The results of this survey can be compared to Zorica's survey, which examined citizens knowledge of their rights in relation to informed consent in Croatia and Switzerland. Of the total number of citizens surveyed (N 751), 540 were in the Republic of Croatia and 211 in Switzerland. The survey showed that citizens in both countries have already experienced informed consent and consider it important. In addition, the survey showed that the majority of citizens would like informed consent in paper or in electronic form so that they can read it again. In both countries, the majority of citizens believe that more time should be spent explaining therapeutic, diagnostic or surgical procedures in healthcare facilities. This was confirmed by the result of the survey in the Republic of Croatia, where 79.44% of citizens stated that more attention should be paid to informed consent.

Knowledge of informed consent itself confirmed the predicted expectations, except in the case of the statement 'Consent without the information from the doctor about your health condition and treatment for certain medical procedures, diagnostics, treatments and admission to hospital so that you can freely decide whether or not you consent to treatment' ($P<0.001$), which was statistically significantly more frequently selected by respondents in Switzerland than by respondents in Croatia. (5)

As Nijhawan and colleagues point out in their article, the problems and challenges associated with informed consent clearly show how important it is in clinical surveys. The rights, safety and welfare of respondents should always come before the interests of science and society, so that laypeople do not feel cheated for social reasons. (6)

Apart from the basic general information, the informed consent form in Italy contains the patient's declaration that he or she has been informed by the doctor or principal physician about the future elements of healthcare procedure, such as the purpose of the procedure, the risks that are reasonably foreseeable for the person concerned, expected benefits, the variability of the procedure and/or possible alternatives, the duration of the procedure and the nature of the doctor's assistance, as well as the possibility of withdrawing consent at any time.

It is important to emphasize that in Italy patients declare that before giving their consent to a diagnostic and/or therapeutic procedure, they had enough time for decision making and enough opportunities to be informed by a trustworthy doctor and that all the answers to their questions met their needs. However, it is also clear that the doctor who signs the informed consent form and obtains all consents does not have to be the same doctor who has previously informed the patient and/or who will perform the procedure. (6)

Sandra Crouse Quinn from the University of Maryland, USA, conducted a survey on successful information

insertion in compliance laws, strategies to increase minority participation and emphasized that the survey found that racial and ethnic minorities were willing to participate, but did not. The reason for this was poor recall and understanding of the information presented during the process and the presence of a great lack of knowledge, especially among racial and ethnic minorities. The conclusion is that if the informed consent process is conducted well, all the challenges can be resolved and trust can be established between the researcher and the participant, but if it is conducted poorly, mistrust can be reinforced by the consent process itself. (7)

The aim of the survey conducted by Leclercq and his colleagues in the Netherlands was to assess whether Dutch general surgeons and specialists were adequately implementing all the necessary elements of informed consent. The obtained results from a total of 453 respondents, they received from the surgeons and the citizens representing >95% of all Dutch hospitals were acceptable for the survey (response rate 30%). Knowledge of informed consent was limited with only 55% of the respondents knowing all three basic elements ('assessment of preconditions', 'providing information' and 'degree of consent'). The impact of the respondents was worse compared to the surgeons in the majority of aspects of daily practice. One in six surgeons (17%) had faced complaints related to informed consent in the last five years, which describes an insufficient implementation of informed consent in daily surgical practice. (6)

CONCLUSION

1. The survey revealed that the citizens of the city of Sarajevo are only partially familiar with the existence, meaning and practice of implementing informed consent for medical procedures in hospitals.
2. There are guidelines that regulate the concept of informed consent, in daily practice there is obviously a difference between the legal theory and the actual implementation.
3. The lack of time for healthcare professionals to explain therapeutic, diagnostic or surgical procedures in detail represents the significant problem. In addition, the excessive administration required by legal regulations additionally slows down the healthcare system and reduces the time that can be devoted to patients.
4. Patients are often inadequately informed, which can affect their understanding and decisions regarding medical procedures.
5. Quality communication with the patients is crucial for their preparation and successful recovery. The better informed they are in advance, the greater the chances of successful treatment and the lower the risk of complications.
6. Based on the results obtained the working hypothesis of this study was confirmed.

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RAD SADRŽI:

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NASLOV RADA NA NAŠEM JEZIKU

IME I PREZIME AUTORA I KOAUTORA
Naziv i puna adresa institucije u kojoj je autor-koautor/i zaposlen/i (jednako za sve autore), na engleskom jeziku, te na kraju rada navedena adresa kontakt-autora.

SAŽETAK
na našem jeziku, kao i na engleskom - max. 200-250 riječi, s najznačajnijim činjenicama i podatcima iz kojih se može dobiti uvid u kompletan rad.

KLJUČNE RIJEČI - KEY WORDS
na našem jeziku i na engleskom, ukupno do pet riječi, navode se ispod Sažetka, odnosno Abstracta.

SADRŽAJ

Sadržaj rada mora biti sistematično i strukturno pripremljen i podijeljen u poglavlja i to:

- **UVOD**
- **MATERIJAL I METODE**
- **REZULTATI**
- **DISKUSIJA**
- **ZAKLJUČAK**
- **LITERATURA**

UVOD
Uvod je kratak, koncizan dio rada i u njemu se navodi svrha rada u odnosu na druge objavljene radove sa istom tematikom. Potrebno je navesti glavni problem, cilj istraživanja i/ili glavnu hipotezu koja se provjerava.

MATERIJAL I METODE
Potrebno je da sadrži opis originalnih ili modifikaciju poznatih metoda. Ukoliko se radi o ranije opisanoj metodi dovoljno je dati reference u literaturi. U kliničko-epidemiološkim studijama opisuju se: uzorak, protokol i tip kliničkog istraživanja, mjesto i vrijeme istraživanja. Potrebno je opisati glavne karakteristike istraživanja (npr. randomizacija, dvostruko slijepi pokus, unakrsno testiranje, testiranje s placebom itd.), standardne vrijednosti za testove, vremenski odnos (prospektivna, retrospektivna studija), izbor i broj ispitanika - kriterije za uključivanje i isključivanje u istraživanje.

REZULTATI
Navode se glavni rezultati istraživanja i nivo njihove statističke značajnosti. Rezultati se prikazuju tabelarno, grafički, slikom i direktno se unose u tekst gdje im je mjesto, s rednim brojem i konciznim naslovom.Tabela treba imati najmanje dva stupca s obrazloženjem što prikazuje; slika čista i kontrastna, a grafikon jasan, s vidljivim tekstom i obrazloženjem.

DISKUSIJA
Piše se koncizno i odnosi se prvenstveno na vlastite rezultate, a potom se nastavlja upoređivanje vlastitih rezultata s rezultatima drugih autora, pri čemu se citiranje literature navodi po važećim Vankuverskim pravilima. Diskusija se završava potvrdom zadatog cilja ili hipoteze, odnosno njihovim negiranjem.

ZAKLJUČAK
Treba da bude kratak, da sadrži najhitnije činjenice do kojih se došlo u radu tokom istraživanja i njihovu eventualnu kliničku primjenu, kao i potrebne dodatne studije za potpuniju aplikaciju. Obavezno navesti i afirmativne i negirajuće zaključke.

LITERATURA - Upute za citiranje - pisanje literature
Literatura se obavezno citira po **Vankuverskim pravilima.** Svaku tvrdnju, saznanje ili misao treba potvrditi referencom. Reference u tekstu treba označiti po redoslijedu unošenja arapskim brojevima u zagradi na kraju rečenice. Ukoliko se kasnije u tekstu pozivamo na istu referencu, navodimo broj koji je referenca dobila prilikom prvog unošenja/pominjanja u tekstu. Literatura se popisuje na kraju rada, rednim brojevima pod kojim su reference unesene u tekst (ulazni broj reference), a naslov časopisa se skraćuje po pravilima koje određuje Index Medicus. Ukoliko je citirani rad napisalo više autora, navodi se prvih šest i doda “et al.”.
Vrlo je važno ispravno oblikovati reference prema uputama koje se mogu preuzeti na adresama National Library of Medicine Citing Medicine http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=citmed.TOC&depth=2 , ili International Committee of “Reformer – Health journal” Editors Uniform Requirements for Manuscripts Submitted to Biomedical Journals:
Sample References
http://www.nlm.nih.gov/bsd/uniform_requirements.html.

THE ACTIVITIES OF THE CHAMBER
AKTIVNOSTI KOMORE

SARAJEVO SYMPOSIUM FOR NURSES-TEHNICIANS WITH INTERNATIONATIONAL PARTICIPATION

SARAJEVSKI SIMPOZIJUM ZA MEDICINSKE SESTRE -TEHNIČARE SA MEĐUNARODNIM UČEŠĆEM

Sarajevski Simpozijum za medicinske sestre -tehničare sa međunarodnim učešćem održan je u Hotelu “Holivud” Ilidža u periodu 30.11-03.12.2023.g.
Simpozijum pod sloganom “Specijalističko obrazovanje za medicinske sestre-tehničare- rješenje problema u zdravstvenom sistemu”, trajao je tri dana. Tom prilikom prezentirano je preko 30 stručnih i naučnih radova.
Pored učesnika iz Bosne i Hercegovine na Simpozijumu su aktivno učestvovale kolegice i kolege iz Regiona.
Kao zaključak Simpozijuma istaknuta je potreba za specijalističkim edukacijama za medicinske sestre-tehničare koja bi trebala da počne što ranije sa realizacijom.
Univerzitet u Sarajevu- Fakultet zdravstvenih studija je kapacitiran da omogući adekvatno provođenje specijalističkog obrazovanja. Medicinske sestre specijalisti za određena područja zdravstvene njege značajno bi unaprijedile zdravstvenu zaštitu populacije, a i kvalitet zdravstvenih usluga koje se pružaju oboljelima.
Simpozijumu je prisustvovalo više od 600 učesnika.

PROFESSIONAL VISIT TO THE REGIONAL CENTER OF COMPETENCES OF MEDICAL SCHOOL BJELOVAR

STRUČNA POSJETA REGIONALNOM CENTRU KOMPETENTNOSTI MEDICINSKE ŠKOLE BJELOVAR

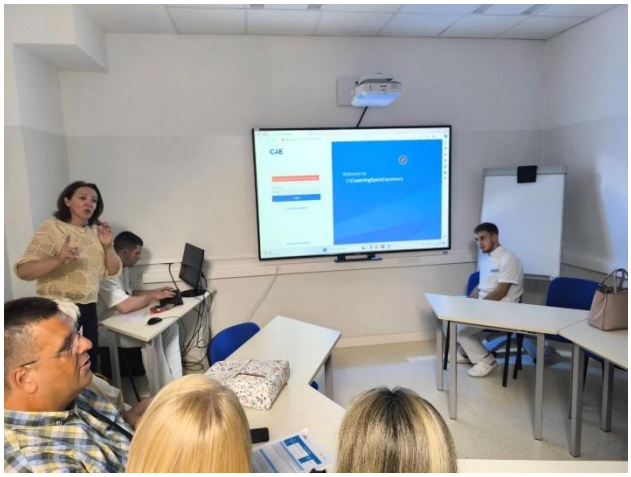
Predstavnici Komore medicinskih sestara-tehničara i profesorice praktične nastave iz Srednjih medicinskih škola u Sarajevu, boravili su u dvodnevnoj stručnoj posjeti Regionalnom centru kompetentnosti Medicinske škole Bjelovar.

Domaćin susreta bila je g-đa Tina Jelić, mag.med.tech., voditeljica Centra koja je iskazala dobrodošlicu i prisutne detaljno upoznala sa radom Centra.

Tom prilikom učenici Srednje medicinske škole uz mentorstvo profesorice Jelić, demonstrirarali su praktične vježbe na modelima i prezentirali benefite učenja na istim. G-đa Tina Jelić je istakla da su modeli, uključujući i savremeni softver vrlo skupe tehnologije koje je Bjelovar dobio zahvaljujući projektu Evropske unije, na kome je intenzivno radila sa ciljem bolje organizacije praktične nastave.

Navela je da se u Centru mogu educirati i zdravstveni radnici u okviru programa kontinuirane edukacije.

Stručna posjeta je obavljena u Julu 2024.g.



PROFESSIONAL VISIT TO THE RETIREMENT AND ASSISTED LIVING FACILITY “ZDRAVA SREDINA” KNEŽEVO, KOTOR VAROŠ

STRUČNA POSJETA DOMU ZA STARIJE OSOBE “ZDRAVA SREDINA” KNEŽEVO, KOTOR VAROŠ

Dom za smještaj starijih osoba “Zdrava sredina” djeluje decentralizorano na 3 lokaliteta i to: Kneževo, Kotor Varoš i Kostajnica. Sva tri Doma ispunjavaju standarde kvalitete 9001:2015, a što potvrđuje kvalitet rada u praksi, što je potvrđeno ISO certifikacijom koja se svake godine ažurira. Predstavnici Komore imaju uspješnu dugogodišnju saradnju sa menadžmentom i uposlenicima. Zahvaljujući menadžmentu ustanove odnosno direktoru g-din Dragi Đeniću, svake godine najveći broj uposlenika su aktivni učesnici Sarajevskog simpozijuma medicinskih sestara-tehničara sa međunarodnim učešćem.

U cilju nastavka dobre profesionalne saradnje Komora medicinskih sestara -tehničara u saradnji sa Udruženjem za kontinuiranu edukaciju zdravstvenih radnika, zdravstvenih saradnika i njegovatelja u FBiH organizirala je stručna predavanja za uposlenike sva tri Doma. Predavanja o komunikacijama, komunikacijskim vještinama, te specifičnostima ishrane bolesnika održao je prof.dr Amer Ovčina. Predavanje o prevenciji i tretmanu hroničnih rana održala je mr. Zdravstvene njege Aida Kapo, a prof.dr Hadžan Konjo održao je predavanje o značaju prevencije rizika kod starijih osoba i sigurnosti u institucionalnom smještaju.

Stručnoj posjeti prisustvovao je i generalni sekretar Komore gdin Sead Džomba.

Profesionalna saradnja se nastavlja u cilju poboljšanja kvalitete usluga koje se pružaju starijim osobama. Stručna predavanja održana su u septembru 2024.g.