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## MANAGEMENT OF THE CLINICAL HEALTH CARE STANDARDIZATION PROCESS

### UPRAVLJANJE PROCESOM STANDARDIZACIJE KLINIČKE ZDRAVSTVENE ZAŠTITE

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#### ABSTRACT

An educated nurse has abilities to recognize and assess patients' health care needs. Following the identified needs, the nurse organizes a health care process that meets the needs of patients. By standardizing education and professional practice, and recording the work of a nurse, the changes that are taking place in the nursing profession are recognizable. Certain activities related to the management and quality control of health services have set new requirements but also challenges for nurses and technicians. Traditional care, which until now was carried out exclusively on the doctor's order, has now been replaced by modern health care. The purpose of modern health care is an individual approach for each patient, which is properly recorded in the health care documentation.

The study is exploratory, descriptive, analytical, and comparative. The author's original questionnaire was used as a study instrument, created based on a review of scientific and professional literature and experiences from clinical practice. The results of statistical data analysis are presented in tables and graphs by the absolute number of cases and percentages. Comparison and influence of individual factors were examined using the chi-square test, with test results considered significant at the 95% confidence level ( $p < 0.05$ ). The analysis was

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conducted using the IBM Statistics SPSS v 25.0 sociological study package (Chicago, Illinois, USA). Nurses believe that quality health care contributes to a faster process of treating patients in 91.6% of cases and that partial contributions are considered by 7.6% of them. Only one respondent believes that quality health care does not contribute to a faster healing process. Nurses believe that their colleagues provide the health care process in whole or in part in a quality, safe and equal way. This study confirmed that standardization has a positive impact on building the identity, integrity, and autonomy of the nursing profession, and it achieves the precondition for certification and accreditation of a health institution.

**Key words:** standardization, clinical health care, nursing, quality, health care process

## SAŽETAK

Obrazovana medicinska sestra ima interne sposobnosti da prepozna i procijeni zdravstvene potrebe pacijenata. U skladu sa identifikovanim potrebama, medicinska sestra organizuje proces zdravstvene zaštite koji zadovoljava potrebe pacijenata. Standardizacijom obrazovanja i stručne prakse, te evidentiranjem rada medicinske sestre, prepoznatljive su promjene koje se dešavaju u sestrinskoj profesiji. Određene aktivnosti vezane za upravljanje i kontrolu kvaliteta zdravstvenih usluga postavile su nove zahtjeve, ali i izazove za medicinske sestre i tehničare. Tradicionalna njega, koja se do sada obavljala isključivo po nalogu ljekara, sada je zamjenjena modernom zdravstvenom zaštitom. Svrha savremene zdravstvene zaštite je individualni pristup svakom pacijentu, što je uredno evidentirano u zdravstvenoj dokumentaciji.

Studija je istraživačka, deskriptivna, analitička i usporedna. Kao instrument za proučavanje korišten je autorov originalni upitnik, nastao na osnovu pregleda naučne i stručne literature i iskustava iz kliničke prakse. Rezultati statističke analize podataka prikazani su u tabelama i grafikonima po apsolutnom broju slučajeva i procentima. Poređenje i utjecaj pojedinačnih faktora ispitani su pomoću hi-kvadrat testa, pri čemu se rezultati testa smatraju značajnim na nivou pouzdanosti od 95% ( $p < 0,05$ ). Analiza je provedena korištenjem IBM Statistics SPSS v 25.0 paketa socioloških studija (Chicago, Illinois, USA). Medicinske sestre smatraju da kvalitetna zdravstvena zaštita doprinosi bržem procesu liječenja pacijenata u 91,6% slučajeva, a parcijalne doprinose smatra njih 7,6%. Samo jedan ispitanik smatra da kvalitetna zdravstvena zaštita ne doprinosi bržem procesu izlječenja. Medicinske sestre smatraju da njihove kolege u cijelosti ili djelimično pružaju zdravstveni proces na kvalitetan, siguran i jednak način. Ovo istraživanje je potvrdilo da standardizacija pozitivno utječe na izgradnju identiteta, integriteta i autonomije sestrinske profesije, te ostvaruje preduslov za certifikaciju i akreditaciju zdravstvene ustanove.

**Ključne riječi:** standardizacija, klinička zdravstvena njega, sestrinstvo, kvalitet, zdravstveni proces

## INTRODUCTION

Today, there is a growing worldwide awareness of the importance and essential needs of the nursing profession standard as one of the components of health care. Therefore, the responsibility of today's nurses and technicians is crucial and implies that the quality of decisions made should be adequate and aimed at ensuring quality and safe health care within the resources available. Standards are not permanent and are not static. They are very susceptible to change, which is a desirable characteristic given the constant changes in needs and the pursuit of the better (Čakalić, 2018).

Standards are constantly changing, adapting to new changes in the development, progress, and values of the profession, and legal changes in authorized institutions. Standards in the nursing profession affect the quality of nursing care, the curriculum of nursing education at various levels, as well as the quality of the nursing profession in a broader sense, and the creation of nursing guides and protocols (Domitrović, 2016).

The standards of nursing practice are based on the principles of:

- The user of services is always at the center of the activities of health professionals,
- The service user is a partner in decision-making with a health team of professionals,
- Improving practice is an integral part of the work of nurses through the improvement of the necessary knowledge and skills - based on evidence,
- The quality of nursing care requires and implies the implementation of health care by professional competencies (Gavranić, Iveta & Sindik, 2016).

The job of a nurse in the field of health care is independent and extremely responsible. A lot of effort and commitment is needed for the profession to be autonomous, and developing at all levels of education, from high school to higher education. To provide quality health care to users, and in the interest of the nursing profession, the public during the campaign must be informed about the real competencies and values of modern nursing as a profession, and the perception of nurses and technicians should be in line with real facts (Mihelčić, 2020). The process of nursing care is a term that describes a system of characteristic nursing activities and interventions related to the health of an individual or an individual, family, or community. It is defined as the application of scientific methods to determine the basic health needs of patients or clients, family or community, as well as to identify those needs that can be more effectively met through health care. The process includes planning and providing health care focused on meeting needs, as well as evaluating results. The nurse-technician, in cooperation with other members of the health care team and patients or clients, defines the goals but also determines the priorities, and determines what type of health care should be provided. Provides health care services directly or indirectly. Finally, the nurse-technician evaluates the outcome of the health care. The data obtained from the evaluation should initiate desirable changes in future activities or interventions under random circumstances of health care provision (Rudić, Kocev & Mućan, 2008).

According to the definition of the World Health Organization, the quality of health services is the degree to which health institutions or organizational units achieve the improvement of the health of their clients or patients, and follow the needs and expectations. Patient satisfaction is one of the main indicators of the quality of health care provided. While the notion of patient satisfaction is defined by the degree to which his requirements are met

(Regent Turkalj, 2016). Each person has the right to quality health care individually, and with good reason, it is becoming an increasingly important right in today's time of limited material resources (Kalauz, 2019).

### **Quality and safety of clinical health care**

We define quality as the degree to which a set of intrinsic characteristics meets certain requirements to achieve a standard. Quality in health care is defined as „the degree to which the health care system and health services increase the likelihood of a positive treatment outcome”. The introduction of a quality system in health care institutions results in several benefits such as:

- increasing the reputation of users,
- increasing patient satisfaction,
- transparency of the service process,
- reduction of patient complaints,
- increasing responsibility according to the needs of patients,
- trust in health care institutions that operate by quality standards,
- improving the efficiency of management,
- easier inclusion of new employees,
- improving health planning and control,
- reducing the turnover of first-line staff,
- fair distribution of employee responsibilities,
- unification of work processes in all parts of the health institution,
- reduction of unexpected situations, errors, and risks in health care better technical (outcome) and functional (process) level of service (Pijalić, 2009).

The quality of services provided in health care institutions directly affects the incidence of certain injuries, conditions, and diseases, and the average life expectancy of the population, as well as other indicators of the health status of the population. Providing health care by professionals is part of what nurses and technicians do, but it is not what nurses and technicians are. Nurses enable the availability of health care services that are provided efficiently and effectively. Given the striving for quality at all times, the characteristics of good health services are comprehensiveness, accessibility, health coverage, continuity in service delivery, quality of services, people-oriented, service coordination, accountability, and efficiency.

### **Standards of clinical health care**

It is considered an authoritative statement founded by a professional organization that educates a particular profession and serves as a benchmark in the assessment of the quality of work or practice (Institute for Public Health FB&H, 2014). Structure standards describe and regulate nursing service, service organization, and equipment. Standards of the nursing work process describe the professional performance and work of nurses by the achievement of the desired level of performance of certain professional skills. The standard provides guidelines on what needs to be done, how and in what way to do it for the patient, defining the quality of nursing care. Outcome standards describe the changes we are striving for, which should occur

as a result of the implementation of activities. The standard of the outcome can be general and specific. Standards indicators describe how to meet standards and how the standard can be applied in practice. They can be modified and adapted to the specific areas of activity of nurses in health care (Bišćan, 2003).

The standards according to which registered nurses (RN - Registered Nurses), i.e., graduate nurses perform their nursing practice are:

- Standard 1: Critically thinks and analyze nursing practice
- Standard 2: Involved in therapeutic and professional relationships
- Standard 3: Maintains the ability to exercise
- Standard 4: Conducts comprehensive assessments
- Standard 5: Develops a nursing practice plan
- Standard 6: Provides a safe, appropriate, and sensitive quality of nursing practice
- Standard 7: Assess outcomes to inform nursing practice (The American Nurses Association, 2015.).

However, these standards are comprehensive and all nurses and technicians working in nursing, regardless of professional education, should know and adhere to the standards throughout their nursing practice. According to the ANA - American Nurses Association, the standards of nursing practice contain 3 components:

- Health care standards
- Standards of professional performance
- Guides, care protocols for specific populations, and areas of nursing care (Ellis, Hartley & Berger, 1988).

### **Health care standards**

The standards of health care are reflected in the process of health care, which represents the directive nature of the standards performed by the nurse-technician as a professional (Izetbegović et al., 2020). The health care process better known as the nursing process is conceived as a dynamic, iterative, and cyclical process that includes assessment, diagnosis, goals, planning, execution, and evaluation (Ivanuša & Železnik, 2008).

The most commonly used definition of the health care process is: „*The nursing process is a term that describes a system of characteristic nursing interventions that relate to the health of the individual, family, and/or community. In particular, it is the application of scientific methods to determine the health needs of patients/clients/families, or communities, and to identify those needs that can be more effectively met through nursing care; the process further includes planning and providing nursing care aimed at meeting these needs, and evaluating results. The nurse, in collaboration with other members of the health care team and patients/clients or groups, defines goals/outcomes, sets priorities, determines what type of care should be provided, and mobilizes resources. Furthermore, it provides nursing services, directly or indirectly. Finally, it evaluates the outcome of care. The data obtained from the evaluation of the results should initiate desirable changes in future interventions under similar circumstances of providing nursing care. In this way, nursing becomes a dynamic process, subject to adaptation and improvement*“ (Barrett et al.,1999).

The WHO states: „Human care is the basis of nursing and the way a nurse provides that care is the basis of the nursing process. Providing care requires work that is not based on intuition, but on a deliberate and organized approach to meeting needs and solving problems. „Back in 1967, H. Yura and MBWalsh presented the process of health care, which at that time consisted of only four phases:

1. Assessment or determination of the user's need for health care,
2. Health care planning,
3. Performing health care activities,
4. Evaluation of health care (George, 1985).

After 1990, nursing theorists defined the diagnosis of health care as an independent phase in the health care process. In this way, importance was given to this phase as a key element in the health care process. Since then, great progress has been made in the nursing profession. One year later, in 1991, the American Nurses Association (ANA) published standards of clinical practice in health care, according to which the process consisted of five phases:

1. Assessment of the need for health care,
2. Nursing diagnosis,
3. Health care planning,
4. Carrying out health care activities,
5. Evaluation of health care (Prlić, 2009)

Thereafter, in 1998, the ANA introduced a six-stage health care process. The expected outcomes or goals were separated from the health care plan as an independent phase because they followed the diagnoses of health care, and based on them, health care was organized, planned, and implemented. This presented process of health care modeled in six phases is still used today:

1. Assessment of the need for health care,
2. Nursing diagnosis,
3. Health care planning,
4. Expected outcomes or goals,
5. Performing health care activities,
6. Evaluation of health care (Tijanić et al., 2010.).

This article aims to show whether the standardization of clinical health care contributes to the strengthening of nursing competencies, reduction of variations and risks in the provision of nursing services, and patient satisfaction.

## 1. METHODOLOGY

The study was conducted among nurses employed at the Clinical Center of the University of Sarajevo. The study was conducted on a sample of 131 respondents the period December 2020 - to August 2021.

The original author's questionnaire was created based on scientific and professional literature, as well as an evidence-based practice was used for the study. The study is descriptive, analytical, comparative, and exploratory. For statistical analysis of the obtained data, the software systems SPSS for Windows (version 13.0, SPSS Inc, Chicago, Illinois, USA) and Microsoft Excel (version 11. Microsoft Corporation, Redmond, WA, USA) were used.

## 2. RESULTS

The results of statistical data analysis are presented in tables and graphs by the absolute number of cases and percentages. In the period December 2020 - August 2021, a total of 131 respondents completed the survey using the Google forms form.

Table 1. Sociodemographic characteristics of the sample

| Variable   |                                           | N   | %    |
|------------|-------------------------------------------|-----|------|
| Gender     | Male                                      | 20  | 15.3 |
|            | Female                                    | 111 | 84.7 |
| Age        | 18-25 years                               | 5   | 3.8  |
|            | 26-36 years                               | 19  | 14.5 |
|            | 37-45 years                               | 63  | 48.1 |
|            | 46-55 years                               | 30  | 22.9 |
|            | 56-65 years                               | 14  | 10.7 |
| Education  | High school education                     | 58  | 44.6 |
|            | Higher education                          | 4   | 3.1  |
|            | University degree                         | 50  | 38.5 |
|            | Master, Doctor of Science                 | 18  | 13.8 |
| Profession | Chief nurse-technician of the institution | 19  | 14.5 |
|            | Chief Nurse-Technician of the Department  | 34  | 26.0 |
|            | Nurse-technician                          | 78  | 59.5 |

Source: the authors' research results

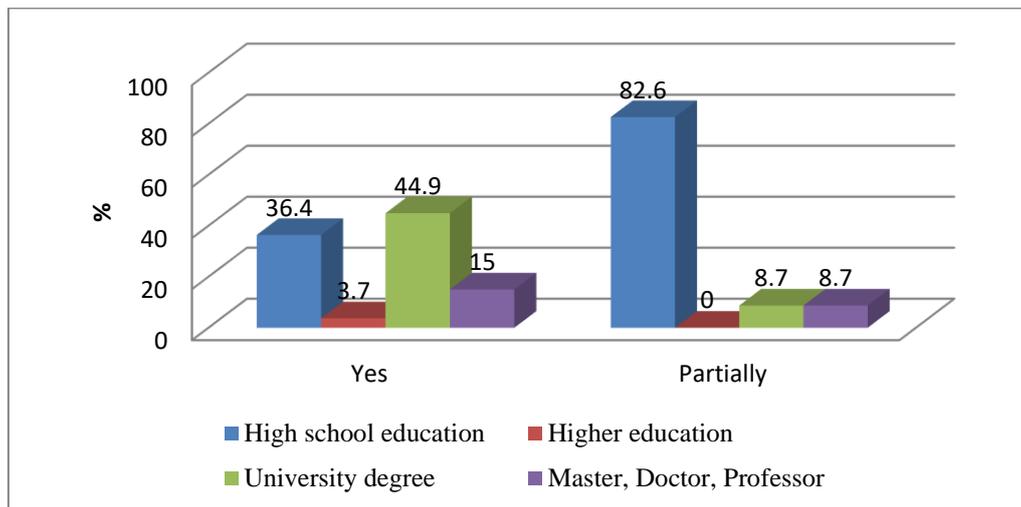
A review of the gender structure of the sample shows that nurses completed the online survey significantly more often in 111 or 84.7% compared to medical technicians who completed the survey in 20 or 15.3% of cases.

Concerning age groups, the largest number of respondents is aged 37-45 years - 63 or 48.1%, followed by the frequency of respondents aged 46-55 in 30 or 22.9%, respondents aged 26-36 years in 19 or 14.5%, 56-65 years in 14 or 10.7%, and the lowest number of respondents aged 18-25 years in 5 or 3.8% of cases.

Regarding education, the largest number of respondents have completed secondary education in 58 or 44.6%, followed by respondents with higher education in 50 or 38.5% of cases, masters, doctors, or professors in 18 or 13.8% of cases, and the smallest number respondents with a university degree in 4 or 3.1% of cases.

The largest number of respondents in our sample are nurses working in the process of health care in 78 or 59.5% of cases, followed by the chief nurses of the department in 34 or 26.0%, and the smallest number of chief nurse institutions in 19 or 14.5% of cases.

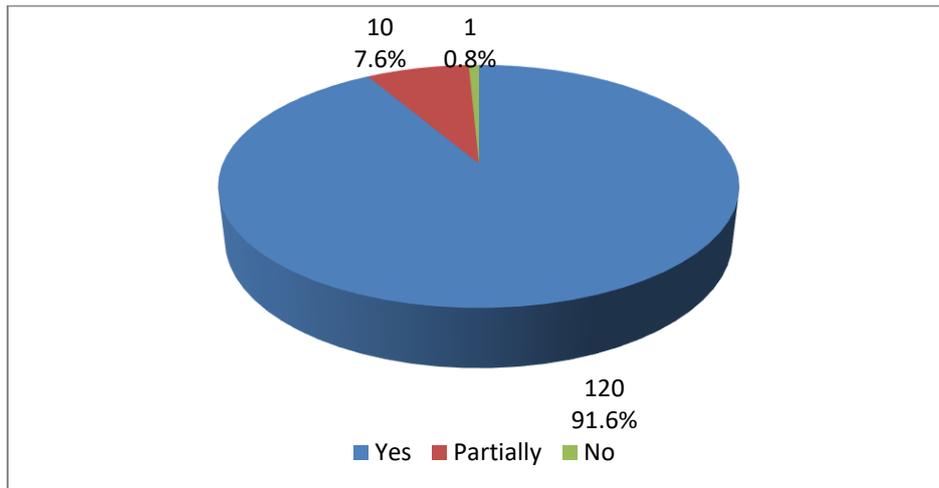
Figure 1. Familiarity with competencies in the process of health care according to education



Source: the authors' research results

The results of the study show that all nurses and technicians are familiar with competencies in the health care process, but that highly educated nurses are more often fully acquainted with their competencies compared to nurses with secondary education ( $p < 0.05$ ). Competences have a great influence on the life and work of nurses. A very important segment is the knowledge and cognition of one's competencies, and especially the knowledge of the professional competencies of a nurse-technician in the process of health care.

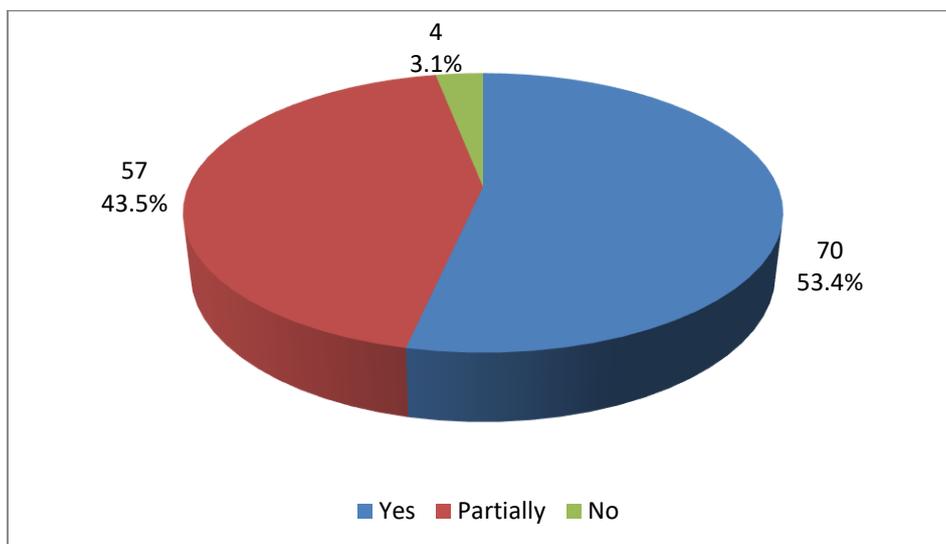
Figure 2. Quality health care contributes to a faster process of treating patients



Source: the authors' research results

Nurses believe that quality health care contributes to a faster process of treating patients in 91.6% of cases, and that partial contributions are considered by 7.6% of them. Only one respondent believes that quality health care does not contribute to a faster healing process.

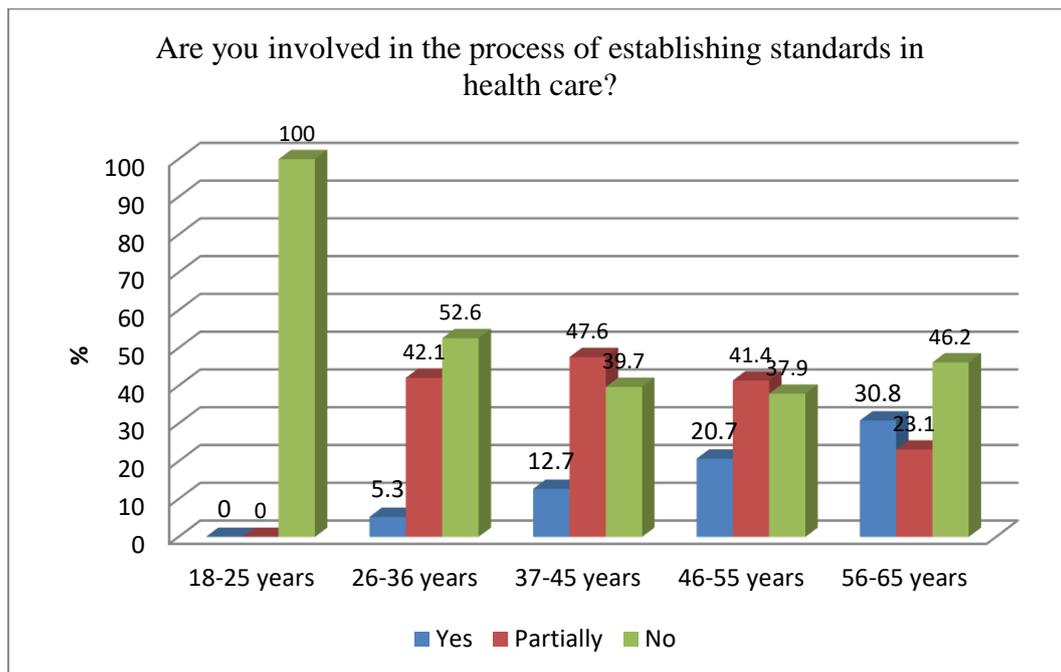
Figure 3. Colleagues provide the health care process in quality, safe and equal way



Source: the authors' research results

Most of the nurses (53,4%) agree that their colleagues provide the health care in a quality, safe and equal way, while 43,5% of them believe that health care is partially provided in quality, safe and equal way.

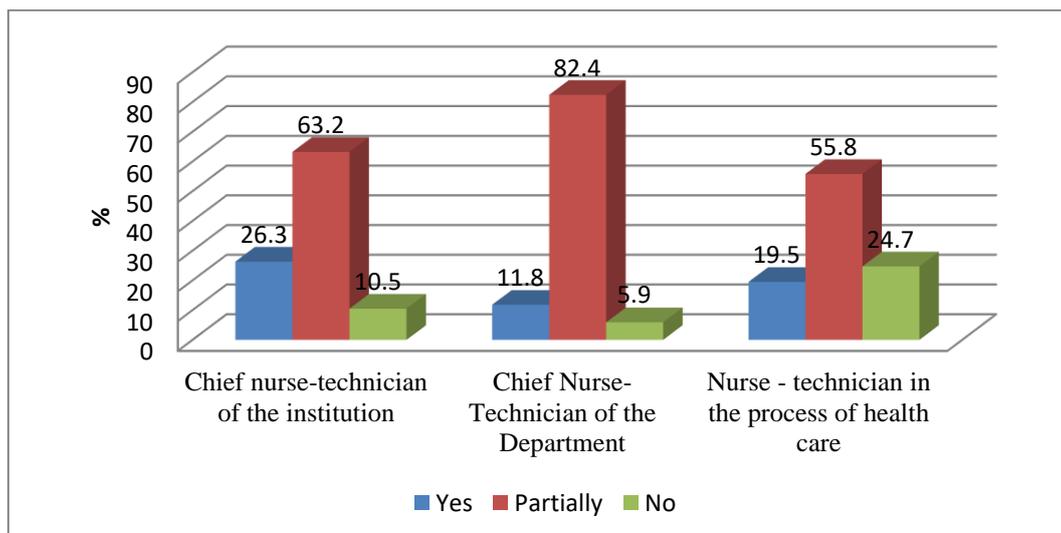
Figure 4. Involvement in the process of establishing standards in health care according to age



Source: the authors' research results

The results of the study clearly show the difference when comparing participation in the process of establishing standards in health care by age. Ways of participating in the process of establishing standards in health care are different among nurses employed in organizational units of the Clinical Center of Sarajevo University.

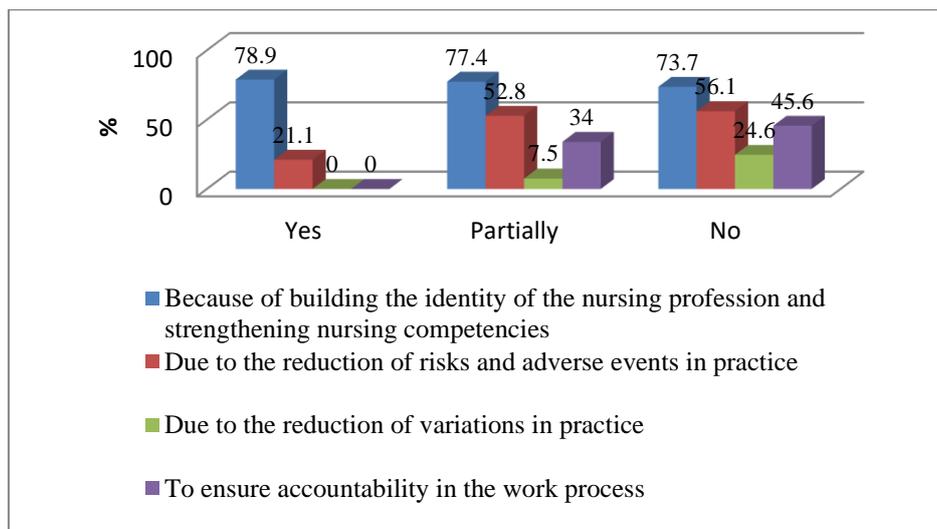
Figure 5. Opinion on the independence of nursing staff in making decisions according to function in the workplace



Source: the authors' research results

The study has shown that there is a divided opinion among nurses when it comes to the autonomy of decision-making in health care. Of the total number, 63.8% believe that nursing staff is partially independent in decision-making in health care, while 18.5% believe that they are completely independent, and 17.7% believe that they are completely independent in decision-making in health care. The study showed that the head nurses of institutions or departments are considered nurses independent in decision-making, compared to nurses working in the healthcare process ( $p < 0.05$ ).

Figure 6. Reasons for the need to standardize health care according to participation in the process of establishing standards



Source: the authors' research results

Even though the majority of respondents in the overall sample believe that the most common reason for the need to standardize health care is „building the identity of the nursing profession and strengthening nursing competencies“, respondents who participate fully in the standard-setting process in practice, while respondents who partially or not participate in the process of establishing standards believe that the reasons are both „reducing variations in practice“ and „ensuring accountability in the work process“ ( $p < 0.05$ ).

## CONCLUSION

The results of this study confirmed that nurses provide health care based on agreed standards and criteria, which are based on scientific and professional evidence. Most of the OJ / Clinic head nurses are involved in setting new standards in practice. Respondents aged 18-25 stated that they do not participate in the process of standardization of health care. Also, most respondents believe that the standardization of health care contributes to the construction of professional identity, and reduces variations in practice, that the introduction of standardization of health care is important for continuous learning, good clinical assessment, and nursing diagnoses.

The largest number of respondents expect that the introduction of standards in health care will increase opportunities for evaluation of the profession, health services, and new funding in the health care system.

This study confirmed that standardization has a positive impact on building the identity, integrity, and autonomy of the nursing profession, and it achieves the precondition for certification and accreditation of a health institution

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