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REVIEW

Making Nurses and Nursing Care Visible in Nigeria. A Review of Standardized Nursing Care Plan from the Nurse Len

Nijerya'da Hemşireleri ve Hemşirelik Bakımını Görünür Hale Getirmek. Hemşire Len'den Standardize Hemşirelik Bakım Planının Gözden Geçirilmesi

Iyanuoluwa Oreofe Ojo[1], Olufemi Oyebanji Oyediran[2], Esther K Afolabi[2], Adenike A. Olaogun[2], Prisca O. Adejumo[1]

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Abstract

A standardized nursing care plan (SNCP) is a published universal action plan that specifies nursing care, and it has evolved into the standard in nursing practice for the betterment of healthcare globally. However, this nursing care plan's use can vary depending on the institutions thus limiting the use among developing hospitals in developing countries such as Nigeria. The scoping review sought to analyze, consolidate, and summarize data from the body of research on the use of standardized nursing care plans by Nigerian nurses. Searching for and combining research published between 2015 and 2019 involved using a scoping review technique based on Arksey and O'Malley. Google Scholar, PubMed, CINAHL, and MEDLARS Online, also known as the Medical Literature Analysis and Retrieval System Online, were among the databases that were searched. The number of items that might be included was 38. Standardized nursing languages in the form of NANDA-I were the mostly utilized nursing languages in many hospitals in the country, meanwhile, activities in nursing intervention classification were used by a few. However, nursing outcome classification was stated as nursing evaluation in many hospitals. Also, three categories of identified factors to SNCPs use were I. not having the right format of SNCP on the wards. II. Nursing and Midwifery Council of Nigeria not mandating its use. III. Hospitals not having a policy for the nurses to mandate its use. Addressing the core barriers and making the right format of SNCP available will promote its use in all hospitals in the country. The authors recommend that the Nursing and Midwifery Council of Nigeria should mandate its full adoption in documenting patient care in the hospitals.

Keywords: Advanced nursing process, Nigeria, standardized nursing care plan, nursing process, NANDA-I

Öz

Standardize bir hemşirelik bakım planı (SHBP), hemşirelik bakımını belirleyen yayınlanmış bir evrensel eylem planıdır ve küresel olarak sağlık hizmetlerinin iyileştirilmesi için hemşirelik uygulamalarında standart haline gelmiştir. Ancak bu hemşirelik bakım planının kullanımının kurumlara göre değişebilmesi, Nijerya gibi gelişmekte olan ülkelerdeki gelişmekte olan hastanelerde bu planın kullanımını sınırlamaktadır. Bu kapsam belirleyici derleme, Nijeryalı hemşireler tarafından standardize hemşirelik bakım planlarının kullanımına ilişkin araştırma grubundan elde edilen verileri analiz etmeyi, birleştirmeyi ve özetlemeyi amaçladı. 2015 ile 2019 yılları arasında yayınlanan araştırmaların aranması ve birleştirilmesi, Arksey ve O'Malley'e dayalı bir kapsam belirleyici derleme tekniğinin kullanılmasını içeriyordu. Google Scholar, PubMed, CINAHL ve Medical Literatür Analizi ve Çevrimiçi Erişim Sistemi olarak da bilinen MEDLARS Online, aramanın yapıldığı veritabanları arasında yer aldı. Dahil edilebilecek madde sayısı 38 idi. Ülkedeki birçok hastanede en çok kullanılan hemşirelik dilleri NANDA-I formundaki standardize hemşirelik dilleriydi, buna karşın çok az sayıda hemşirelik müdahale sınıflandırmasındaki faaliyetler kullanıldı. Ancak hemşirelik sonlanım sınıflandırması birçok hastanede hemşirelik değerlendirmesi olarak bildirilmiştir. Ayrıca, SHBP'lerin kullanımına ilişkin tanımlanan faktörlerin üç kategorisi şunlardı: I. Servislerde doğru SHBP formatına sahip olmamak, II. Nijerya Hemşirelik ve Ebelik Konseyi'nin kullanımını zorunlu kılmaması, III. Hastanelerin hemşirelerin kullanımını zorunlu kılacak bir politikasının olmaması. Temel engellerin ele alınması ve SHBP'nin doğru formatının kullanıma sunulması, SHBP'nin ülkedeki tüm hastanelerde kullanımını teşvik edecektir. Yazarlar, Nijerya Hemşirelik ve Ebelik Konseyi'nin, SHBP'nin hastanelerdeki hasta bakımını belgeleme konusunda tam olarak benimsenmesini zorunlu kılmasını önermektedir.

Anahtar Kelimeler: İleri hemşirelik süreci, Nijerya, standardize hemşirelik bakım planı, hemşirelik süreci, NANDA-I

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Introduction

The standardized nursing care Plan (SNCP) is a developing idea that ushers in a new era of nursing care. According to Kourkouta and Papathanasiou (1), nursing language has rarely been able to describe the same clinical condition in a straightforward, consistent, or dependable way.

The clinical information system must therefore use standardized languages to help clinicians with the documentation of nursing practice (2). The evidence-based tool, which is currently in use in intensive care settings in developed nations including the United States and Sweden, among others, has assisted in labeling and identifying the contributions of nursing to healthcare delivery systems and serving as a clinical protocol in these settings (3).

The SNCP is the name of this evidence-based clinical practice. The benchmark in nursing practice for the overall improvement of care has been standardized nursing care plans, which are published universal plans of action outlining nursing care (4,5). However, it is important to note that the formats of the nursing care plans can vary depending on the institutions (6).

In developed countries, research conducted has shown that the utilization of SNCP brought about glycemic control and slight diastolic blood pressure among patients living with diabetes (3). Also, clinical management and therapeutic commitment to chronic health conditions and reduction in drug-related costs among patients living with chronic diseases were improved with the use of SNCPs (3,7,8). SNCP use has been shown to have positive effects on patient safety and clinical outcomes, as well as a decrease in the frequency of hospital readmissions for patients with chronic illnesses (9).

The utilization of SNCPs and challenges encountered by nurses in Nigeria seems not to have been documented as well as the direct impact of SNCPs on patients' health. The adoption of SNCP enhances nurses' ability to plan patient care, leading to improved patient outcomes and treatments (10). Improved clinical care and therapeutic adherence in chronic patients are a few of these outcomes (3,7); also, drug-related expenses have been found to be lower (8,11). Azzolin et al. (7) found that using SNCP effectively improved the management of clients' in-home care by facilitating self-modification support, behavioral modification, prescribed medication, disease process, dietary counseling, telephone consultation, and energy conservation in heart failure patients.

Azzolin et al. (7) found that using SNCP effectively improved the management of clients' in-home care by facilitating self-modification support, behavioral modification, prescribed medication, disease process, dietary counseling, telephone consultation, and energy conservation in heart failure patients.

Aim

This scoping review aims to summarize findings from existing literature regarding the experiences of nurses in Nigeria with the use of a standardized nursing care plan.

Materials and Methods

This study followed the preferred reporting items for systematic reviews and meta-analyses (PRISMA) standard. To investigate the experience of nurses in the use of SNLs and SNCPs in the hospital and to organize the presentation of the results, the PRISMA checklist for scoping reviews (12) was utilized.

Without necessarily going through the formal procedure of a systematic review, scoping studies assist in summarizing important evidence on a topic (13). The information gained through scoping reviews is frequently used in practice, policy creation, and research (13,14). This process is known as the knowledge-to-action cycle. The scoping review methodology used in this study is based on Arksey and O'Malley's model (14) and includes six steps: Defining the research question, locating pertinent studies, choosing the best ones, charting the data, compiling, summarizing, and reporting the findings, and consulting with stakeholders.

Research on SNCPs and SNL experience among nurses that was published between 2015 and 2019 was the only type of study that qualified for inclusion. Since a wider perspective was desired, there were no geographical restrictions on eligibility. All studies concentrating solely on students were omitted based on the exclusion criteria used in the study population.

Investigations using qualitative and quantitative designs as well as literature reviews were eliminated in order to offer a larger diversity of investigations. For the purpose of finding pertinent papers, searches were made in four databases: Google Scholar, PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medical Literature Analysis and Retrieval System Online (MEDLARS Online).

The search was carried out between January and February 2019 using pertinent search terms like Nurs*, Nursing Process, Nursing Care Plans*, SNCP, "challenges to the utilization of Standardized care plan", Advanced Nursing Process", "Standardized Nursing Languages", and "Nigeria Nursing Process". Multiple suffixes were sometimes included in the search result via truncation (i.e., *). First, a general search was done using terms like "Nurs*", "Nursing Process", and "Nursing Care Plans". Boolean operators "AND" and "OR" were employed to, when considered essential, narrow down or broaden the search.

Examples of search terms were "experience of standardized Nursing Languages", "Standardized Care Plan", and "Nursing Process". Finding acceptable search phrases was helped by the Mesh thesaurus (15).

Despite being derived from Mesh terms (i.e., medical subject headings), CINAHL headings contain more terms that are connected to healthcare. Although there may be a slight difference in the subject headings between the two databases, the search terms used for this study were the same across both and included nursing process, standardized nursing language, the experience of nurses with standardized nursing care plans, and standardized nursing care utilization barriers.

Ethical Consideration

Since there was no actual contact with the subjects, no ethical approval was required. Statements on ethical topics are allowed in articles that qualify. The chance of identifying specific individuals was decreased by treating the data as an aggregate.

Results

A total of 520 items were found; 19 of them had duplicate content, and 366 more were eliminated because they were irrelevant. A checklist for literature reviews from the Swedish Agency for Health Technology Assessment and Assessment of Social Services was used for quality evaluation (16). The evaluation involved assigning a score to each article based on various factors, including the degree of systematic errors, transferability, and precision. In order to be included in this review, only 38 publications had to meet the criteria for medium and high quality (see Figure 1).

Objectives, study population, study site, research question, methodology, and outcomes, i.e., experience with standardized nursing care plans, are all pertinent information that may be gathered from the publications. To identify barriers to SNCPs utilization, data were synthesized, mapped, and evaluated.

Table 1 lists a total of 38 papers that were considered for the review (i.e., 33 quantitative and 5 qualitative research). Numerous survey tools used in quantitative studies included questions about participants' demographics, nursing process, SNCP use, SNL use, and factors affecting SNCPs and SNLs use in the nursing process.

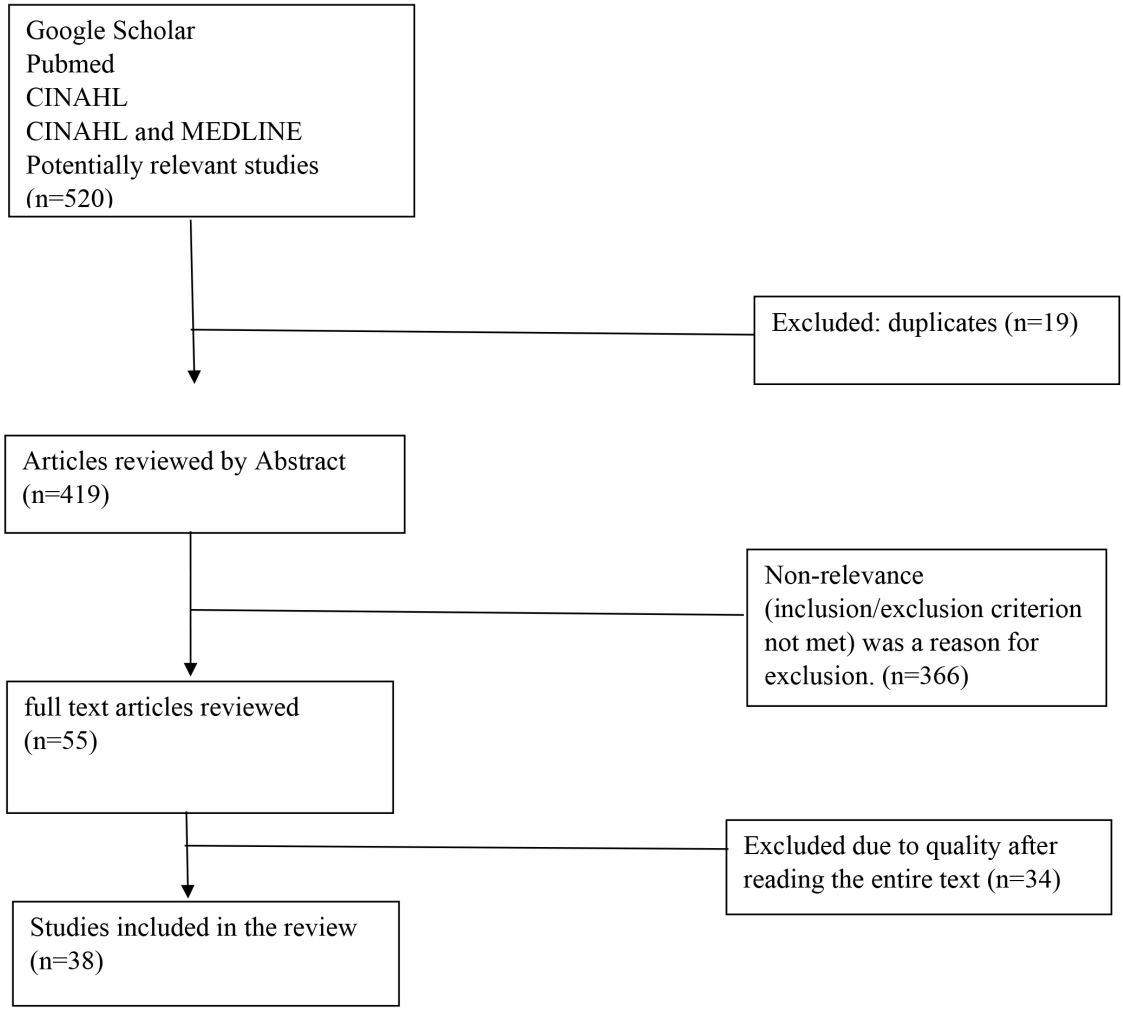

Figure 1.
Process flow Diagram for Searches

Table 1.
Provides an Overview of the Reviewed Studies

Author & year study	Objective	Design	Findings	Country
Adereti and Olaogun (2018)	To evaluate the effect of electronic and paper-based standardized nursing care plans (SNCPs) use on the quality of nurses' documentation	Quasi experimental design	Findings revealed improvement in documentation quality in the two wards after introducing SNCPs with higher quality scores in the electronic ward post-intervention.	Nigeria
Adeyemo and Olaogun (2013)	To assess factors that affect the use of the nursing process	Quantitative descriptive retrospective design	Findings revealed that inadequate knowledge, and institutional, and professional factors negatively influenced the use of the nursing process	Nigeria
Adubi et al., (2017)	To assess the documentation of nursing care before, during, and after the Standardized Nursing Language Continuing Education Programme (SNLCEP)	A retrospective record review design was used.	The study concluded that the SNLCEP had a significant effect on the quality of documentation of nursing care using Standardized Nursing Languages	Nigeria
Agyeman-Yeboah, Korsah, and Okrah (2017)	To assess the factors that influence clinical utilization of the nursing process at a hospital	Qualitative descriptive study	Findings revealed inadequate knowledge, the absence of a nursing care file, and low staffing levels affect the use of the nursing process	Ghana
Aseratie, Murugan, and Molla (2014)	To assess the factors affecting the implementation of the nursing process	Quantitative cross-sectional study.	Findings revealed that stressful working environments, high nurse-to-patient ratios and inadequate knowledge of the nursing process were factors that affected the implementation of the nursing process	Ethiopia
Amugitsi Isiaho, Amessa Assanga, and Wambaya (2019)	To assess the factors that influence the implementation of the nursing process among nurses in a referral hospital	Quantitative descriptive design.	Findings revealed that staff shortage, inadequate knowledge, and lack of material resources were major impediments to the implementation process	Kenya
Alemu and Kebede (2020) .	To assess factors affecting the implementation of the nursing process among nurses in some government hospitals	Mixed methods research	Findings revealed that staff shortage, time allocation, and organizational factors (inadequate resources and low pay for many nurses) limited the use of the nursing process	Ethiopia
Baraki et al. (2017)	To assess factors associated with the implementation of the nursing process.	Quantitative cross-sectional study	Findings revealed that stressful working environments were negatively correlated to the implementation of the nursing process.	Ethiopia

Table 1.
continued

Author & year study	Objective	Design	Findings	Country
Cárdenas-Valladolid et al. (2012)	To evaluate the effectiveness of SNCP implementation, based on North American Nursing Diagnosis Association (NANDA) and Nursing Interventions Classification (NIC), in the improvement of metabolic, weight, and blood pressure control of type 2 diabetes mellitus (T2DM) patients.	A two-year prospective follow-up study	The findings revealed utilization of SNCP helped achieve glycemic control targets in poorly controlled patients with T2DM (HbA1c ≥7%). Diastolic blood pressure results were slightly improved in the SNCP group compared to the UNC group.	Spain
Cárdenas-Valladolid et al., (2018)	To evaluate the effectiveness of implementing (SNCP for improving blood pressure and low-density lipoprotein cholesterol in patients with poorly controlled type 2 diabetes mellitus at baseline	A four-year prospective follow-up study	More patients cared for using SNCP achieved blood pressure goals compared with patients who received usual nursing care.	Madrid, Spain
Conrad et al., (2012).	To identify the perceived user barriers to the documentation of nursing practice utilizing SNL in the EHR by ambulatory care nurse practitioners (NPs)	A researcher-developed survey	Respondents identified NP practice as a blend of medical as well as nursing care but NPs have not embraced the current SNLs as a vehicle to document the nursing component of their care, particularly in EHRs.	United States
Clarke (2017)	To assess the application of the nursing process and associated factors	Mixed method exploratory study.	Findings revealed that inadequate practical knowledge, work stress and lack of healthcare material were inhibiting factors.	Ghana
Edet et al., (2013)	To examine nurses' perception and use of the nursing process.	Cross-sectional descriptive survey.	Findings revealed that nurses viewed the process as beneficial; however, perceived workload, staff shortage, and insufficient material resources were barriers to implementation.	Nigeria
Folami et al., (2019)	To identify the factors that affect the use of the nursing process	Quantitative, descriptive design.	Findings revealed that a permanent increase in the number of patients is a major impediment in a context with low staffing levels.	Nigeria
Leoni-Scheiber et al., (2019).	To assess nurses' knowledge and their attitude towards the advanced nursing process	A cross-sectional, descriptive correlational study	Nurses demonstrated low levels of knowledge, positive attitudes, and an average advanced nursing process quality.	Switzerland

Table 1.
continued

Author & year study	Objective	Design	Findings	Country
Gonen (2017)	To identify the most frequent nursing diagnoses (ND) and their respective linkages with nursing outcomes (NOC) and interventions (NIC) performed by nurses caring for medical and surgical patients.	Document analysis study with a quantitative approach,	The result identifies NNN linkages that were selected by nurses in a real clinical environment, using an electronic clinical decision support system	Sao Paulo, Brazil
Odutayo et al., (2013)	To measure the effectiveness of an educational package on documentation of care among public health nurses.	A quasi-experimental design	There was a significant improvement in documentation of care	Nigeria
Ogunfowokan et al., (2013)	To explore the knowledge and perception of student nurses on the use of NANDA-I nursing diagnoses in the community setting	The study adopted a cross-sectional design	Knowledge and perception of the participants about the use of NANDA-I nursing diagnoses in the community were satisfactory.	Nigeria
Ojo et al., (2020)	To assess the perception of the nursing students about integrating standardised nursing language (SNL) into the nursing curriculum	Cross-sectional research design	Nursing students had a very good perception that SNL is important and should be offered as part of their course system in the institution.	Nigeria
Olsson et al., (2009)	To investigate the quality of standardized care plans and the extent to which they are used within Swedish in-hospital somatic care.	Reviewed document.	There was a lack of knowledge regarding what a standardized care plan is, and how such a document should emanate from evidence-based knowledge.	Sweden
Rabelo-Silva et al., (2017)	To assess the quality of the advanced nursing process in nursing documentation in two hospitals.	Cross-sectional study	The quality of nursing documentation was superior at hospital 1.	Sweden
Sani et al., (2017)	To examine the relationship between knowledge of standardized nursing languages and working experience among nurses in Sokoto, Nigeria.	A quantitative descriptive cross-sectional design	The study found that there is a significant difference between knowledge of standardized nursing language and working experience among nurses.	Nigeria
Setyaningrum et al., (2019)	To determine the effect of providing NANDA-I, NIC, and NOC (NNN) nursing care documentation systems training on the quality of nursing documentation	Pre-experimental study with pretest-posttest design without a control group.	Training in the NNN nursing documentation system could improve the quality of nursing documentation	Yogyakarta regional

Table 1.
continued

Author & year study	Objective	Design	Findings	Country
Gazari et al., (2020)	To explore the perception and utilization of the nursing process	Qualitative study	Findings revealed that nurses perceived the nursing process as scientific and important but failed to use it systematically.	Ghana
Glenn et al., (2020)	To improve the quality of student training by enhancing teaching modalities that suit the baccalaureate degree	Quasi-experimental study.	Findings revealed there is a need to improve the nursing care plan template and the nursing training in constructing quality nursing care plans.	Oman
Gusen et al., (2016)	To evaluate the perception and utilization of standardized electronic health records among nurses in Jos University Teaching Hospital (JUTH), Jos, Nigeria.	Descriptive survey	Findings revealed that the majority of the respondents had positive perceptions about standardized electronic health records.	Nigeria
Hagos et al. (2014)	To assess the application of the nursing process and evaluate the factors that affect its use.	Mixed methods design.	Findings revealed that nurses do not have adequate knowledge that enables them to fully implement the nursing process.	Nigeria
Shewangizaw and Mersha (2015)	To assess the factors that affect the implementation of the nursing process among nurses	Quantitative cross-sectional study.	Findings revealed that stressful working conditions and inadequate knowledge negatively correlated with the implementation of the nursing process.	Ethiopia
Mutshatshi et al., (2015)	To determine the experiences of nurses during the implementation of the nursing process in public clinical settings.	A qualitative phenomenological descriptive study	Findings revealed that inadequate knowledge and low staffing levels were barriers to implementation.	South -Africa
Mangare et al. (2016)	To determine the factors influencing the implementation of the nursing process.	Quantitative cross-sectional study	Findings revealed that training, time, administrative support, supplies, and staffing levels were major factors that influenced the implementation of the nursing process	Kenya
Mbithi, Mwenda, and Karonjo` (2018)	To evaluate the use of the nursing process among nurses	Quantitative cross-sectional study	Findings revealed that inadequate knowledge of the nursing process is an important factor hindering its effective use.	Ethiopia
Miskir and Emishaw (2018a)	To assess the determinants of the nursing process implementation in North Eastern Ethiopia.	Quantitative cross-sectional study	Findings revealed that nurses lack adequate knowledge with regards to the nursing process and this negatively influenced the way it was implemented	Ethiopia

Table 1.
continued

Author & year study	Objective	Design	Findings	Country
Mwangi, Meng'anyi, and Mbugua (2019)	To assess knowledge, attitude, practices, and hospital factors affecting the use of the nursing process	A quantitative, descriptive cross-sectional study	Findings revealed nurses' negative attitude, inadequate knowledge, and lack of facility support as some of the factors affecting implementation.	Kenya
Mutshatshi and Mothiba (2020	To explore the practices of nurses during nursing process implementation.	Qualitative explorative descriptive	Findings revealed that nurses faced many challenges like inadequate knowledge, increased workload, lack of resources, and the time-intensive nature of the process.	South Africa
Ndayi, Kandolo, Matungulu, et al. (2017)	To evaluate the factors related to the experiences of nurses implementing the nursing process.	Qualitative study.	Findings revealed that adequate knowledge; availability of staff and staff motivation can positively influence implementation.	Democratic Republic of Congo
Ojewole and Samole (2017)	To evaluate the use of the nursing process in a hospital milieu	A quantitative descriptive retrospective design	Findings revealed that inadequate knowledge of the nursing process hindered implementation.	Democratic Republic of Congo
Opare et al. (2017)	To explore the perspectives of nurses and midwives two years post training on the nursing process.	Quantitative Survey	Findings revealed that additional training improved knowledge and ability to use the nursing process.	Ghana
Oronje and Munyasa (2018)	To assess the knowledge attitude and practice on the implementation of the nursing process in a clinical setting	A quantitative cross-sectional descriptive study	Findings revealed that those who received additional training were more likely to implement the nursing process than those who did not	Kenya
Soyinka and Salawu (2020)	To assess the determinants of nursing process utilization.	Quantitative descriptive design	Findings revealed that nurses' attitudes, knowledge of the process, and institutional factors significantly influenced proper utilization.	Nigeria
Vincent (2020)	To assess the knowledge, attitude, and practice of the nursing process among nurses	Cross-sectional descriptive study.	Findings revealed that nurses had a positive attitude towards the nursing process but staffing levels and workload are barriers to implementation. Nigeria	Nigeria

For research with a qualitative design, the interview guides included open-ended questions on whether SNCPs, SNLs, and the nursing process are discussed, as well as experiences, attitudes, challenges, and possible solutions. The articles were from Nigeria, Ghana, Ethiopia, Kenya, Spain, Yogyakarta, the USA, Switzerland, Brazil, Sweden, Oman, South Africa, Democratic Republic of Congo (see Table 1). Findings revealed barriers experienced in SNCPs and SNLs use in the country. The three major categories of the experience were not having the right format of SNCPs on the wards, the Nursing and Midwifery Council of Nigeria not mandating the use of SNCPs, and hospitals not having a policy for the nurses to mandate the use of SNCPs.

Discussion

Our results demonstrate that the experiences of nurses in Nigeria with the adoption of a SNCP are consistent despite the many study contexts the studies considered in this scoping review and their peculiarities.

Format of SNCP on the Wards

Interesting literature reviewed shows that there are several challenges facing the utilization of standardized nursing language and standardized nursing care plans in practice, especially as it relates to developing countries such as Nigeria. The factors considered to be the main challenge by nurses include lack of practical skills in data collection, nursing diagnosis, and objective writing; attitudes of nurses towards the nursing process; lack of staff and equipment; unconducive work environment such as frustrations about the failure to implement the nursing process (17,18) In a recently conducted qualitative study on challenges to the utilization of SNLs in the nursing process booklets in three tertiary health institutions in Nigeria. The findings from the study revealed that inadequate knowledge of SNLs, inadequate staffing, the high load of patients, lack of the write format of SNCPs on the wards and lack of motivation among nurses were the major challenges (19).

Non-mandate by Nursing and Midwifery Council of Nigeria

From the literature reviewed, in the case of Nigeria, Adereti and Olaogun (20) described SNCPs as the adoption of standardized nursing languages (North America Nursing Diagnosis Association International (NANDA-I diagnosis), Nursing Intervention, and Nursing Outcome) into the nursing process that is required in a clinical information system. The SNCPs sets out the basic standard of nursing care and can be used for patients with the same medical condition, for patients receiving similar medical treatment, or for patients with similar nursing problems. Adereti and Olaogun (20), posited that SNCPs offer safe nursing care in the wards that utilize them. Also, it has placed nurses in positions to independently apply the SNCP by observation, assessment, nursing diagnosis, planning, intervention, and evaluation of patients' care. The Nursing and Midwifery Council of Nigeria (N&MCN) guideline, revealed that the nursing process should provide the basis for the creation of standards for institutional practice (6). However, the N&MCN has not mandated the use of SNCPs in the hospital but the research that has been done in clinical settings shows that Standardized nursing language is utilized in some hospitals in Nigeria (21,22). The Nursing and Midwifery Council of Nigeria has started developments aimed at enhancing, fostering, and securing the position of nursing as a significant and dignified profession by using NANDA-I diagnostic in the nursing process (23). This is done by making it easier for standardized nursing languages (SNLs) to be used in nursing practice. The SNCP has been incorporated into the school curriculum and the Mandatory Continuing Professional Development Programme (MCPDP), even though the Nursing and Midwifery Council of Nigeria has not yet formally adopted it.

Hospital Policy to SNCPs Use

Studies have shown that Standardized nursing language is utilized in some hospitals in Nigeria (21,22) however, there has not been a policy to enforce its use. In a study conducted in Nigeria's federal teaching hospitals, the utilization of Standardized nursing language enhanced nurses' documentation of care, thereby translating to improved quality of life in the patients (21). Adereti and Olaogun (20) affirm that SNCP could form a basis for electronic health records, which improves population health. Retainment has been difficult in some of these facilities due to hospital policy (non-enforcement of SNCPs by stakeholders of the hospitals). Although, some teaching hospitals still engage in the teaching of SNLs at the in-service training programs of their nurses. Although several submissions to the literature suggested that electronic health records (EHRs) would be introduced into healthcare institutions across the nation, no mention of nursing concepts in the EHR in public hospitals is made (2,24). While nursing services are crucial to inpatient care, other healthcare professionals occasionally use the data from the nurse's record as the foundation for their patient management decisions. The adoption of some of the in this review's variables and their adaptation to context-specific circumstances may lead to the use of SNCP and SNLs for nursing documentation. Additionally, reducing the uncertainty around the discussion and usage of SNCPs can be accomplished by identifying obstacles and implementing enabling factors.

It is important to note the study's advantages and disadvantages. Contrary to systematic reviews, scoping reviews typically do not evaluate the overall quality of the evidence; rather, they are helpful for summarizing important evidence (25).

While two large databases have been thoroughly searched for studies on health, it's still possible that pertinent studies (and their findings) haven't been included. Additionally, the screening of solely English-language papers may lead to the potential omission of pertinent study findings. Despite these drawbacks, this study's strength is the presenting of crucial data that are pertinent to both practice and education.

Conclusion

The use of SNCPs as a clinical protocol has been reported to have several benefits in developed countries (26-28). Meanwhile, the limited empirical study also shows that the introduction of SNLs which is the basis of SNCP has also improved nurses' quality of documentation in developing countries such as Nigeria (20,21). Therefore, the authors presume that the usability of SNCPs that are linked with NANDA-I, NIC, and NOC will ensure that nurses' quality of

documentation is improved and sustained. As well as the visibility of nurses in the healthcare sector.

Implications for Practice

A critical thinking approach to education and practice will encourage knowledge of and use of critique of SNCPs that have limits within the healthcare system. Adopting strategies (including routine training, the Nursing and Midwifery Council of Nigeria's requirement to use SNCPs, and hospital policy to support SNCP use) may promote SNCP utilization in healthcare facilities.

For nurses and other stakeholders to be challenged to accept full adoption in practice, it is crucial to adopt more critical thinking both in practice and training. A critical thinking skill approach will be useful for nurses to achieve meaningful use of SNCPs and its use will hopefully continually boost nurses' documentation and patient care enhanced without bias.

Recommendations

The SNCP is a new development in nursing practice in Nigeria that serves as an advanced nursing process in evaluating the quality of documentation of nurses. On the strength of SNCP as documented in literature the following recommendations are made:

• There is a dire need to inculcate standardized nursing languages into the curriculum of undergraduate in all the schools in the geopolitical zones at the Baccalaureate and graduate levels in Nigeria.

• Nurse auditors in hospitals should be re-trained on the use of nursing diagnostics and standardized nursing care plans. This will help in eliminating the common errors that, nurse auditors themselves make in the process of teaching the nurses about the uses of standardized nursing languages.

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References

1. Kourkouta L, Papathanasiou IV. Communication in nursing practice. Mater Sociomed 2014;26:65-67. [Crossref]
2. Muhammad SA, Suwaiba S. Nurses Attitude and Barriers toward Utilisation of Standardised Nursing Language in Sokoto State. Nigeria Asian Journal of Medicine and Health 2017;2(2):1-6. [Crossref]
3. Cárdenas-Valladolid J, López-de Andrés A, Jiménez-García R, de Dios-Duarte MJ, Gómez-Campelo P, de Burgos-Lunar C, et al. Effectiveness of standardized nursing care plans to achieve A1C, blood pressure, and LDL-C goals among people with poorly controlled type 2 diabetes mellitus at baseline: four-year follow-up study. BMC Fam Pract 2018;19(1):1-10. [Crossref]
4. Behairy AS, Mohamed HS. Students' Opinions Towards Nursing Diagnoses Nursing. International Journal of Nursing Didactics 2015;5(11):1-6. [Crossref]
5. John Mildred E. Integrating NANDA, NOC and NIC into Nursing Education. A Power Point Presentation on Occasion of NANDA-I African Network Southern Zone Conference, Department of Nursing Science, University of Calabar, Calabar 4th April 2018. [Crossref]
6. Kozier B, Erb G, Berman A, Snyder S. Fundamentals of Nursing: Concepts,Process and Practice. 7th Edition. Pearson Education 2004;669-696. [Crossref]
7. Azzolin K, Mussi CM, Ruschel KB, de Souza EN, de Fátima Lucena A, Rabelo-Silva ER. Effectiveness of nursing interventions in heart failure patients in home care using NANDA-I, NIC, and NOC. Appl Nurs Res 2013;26(4):239-244. [Crossref]
8. Pérez Rivas FJ, Santamaría García JM, Minguet Arenas C, Beamud Lagos M, García López M. Implementation and evaluation of the nursing process in primary health care. Int J Nurs Knowl 2012;23(1):18-28. [Crossref]
9. Saranto K, Kinnunen UM, Kivekäs E, Lappalainen AM, Liljamo P, Rajalahti E, et al. Impacts of structuring nursing records: a systematic review. Scand J Caring Sci 2014;28(4):629-647. [Crossref]
10. Sanson G, Vellone E, Kangasniemi M, Alvaro R, D'Agostino F. Impact of nursing diagnoses on patient and organisational outcomes: a systematic literature review. J Clin Nurs 2017;26(23-24):3764-3783. [Crossref]
11. Pérez Rivas FJ, Santamaría García JM, Minguet Arenas C, Beamud Lagos M, García López M. Implementation and evaluation of the nursing process in primary health care. Int J Nurs Knowl 2012;23(1):18-28. [Crossref]
12. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med 2018;169(7):467-473. [Crossref]
13. Serrat R, Scharf T, Villar F, Gómez C. Fifty-Five Years of Research Into Older People's Civic Participation: Recent Trends, Future Directions. Gerontologist 2020;60(1):e38-e51. [Crossref]
14. Daudt HM, van Mossel C, Scott SJ. Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework. BMC Med Res Methodol 2013;13:48. [Crossref]
15. Fulop N. Studying the Organisation and Delivery of Health Services: Research Methods; Psychology Press: London, UK 2001. [Crossref]
16. Swedish Agency for Health Technology Assessment and Assessment of Social Services. The Process of Producing a Systematic Review 2016. [Crossref]

17. Ojewole FO, Samole AO. Evaluation of the nursing process utilization in a teaching hospital, Ogun State, Nigeria. Journal of Nursing and Midwifery Sciences 2017;4(3):97-103. [Crossref]
18. Zainab SO, Salawu RO. Determinants of Utilisation of Nursing Process Among Nurses in University College Hospital, Ibadan, Oyo State, Nigeria Journal of Health, Medicine and Nursing 2020;70(34). [Crossref]
19. Ojo IO, Olaogun AA. Challenges to sustainability of standardized nursing care plan in selected tertiary health institutions in Nigeria. Int J Nurs Knowl 2023;34(3):193-203. [Crossref]
20. Adereti CS, Olaogun AA. Use of Electronic and Paper-based Standardized Nursing Care Plans to Improve Nurses' Documentation Quality in a Nigerian Teaching Hospital. Int J Nurs Knowl 2019;30(4):219-227. [Crossref]
21. Adubi IO, Olaogun AA, Adejumo PO. Effect of standardized nursing language continuing education programme on nurses' documentation of care at University College Hospital, Ibadan. Nurs Open 2017;5(1):37-44. [Crossref]
22. Ojo IO, Adejumo PO, Olaogun AAE, Oyediran OO. Perception of Nnursing Student about Integrating Standardized Nursing Language into the Nursing Curriculum at Two Nigerian Universities. International Journal of Africa Nursing Sciences 2020;12. [Crossref]
23. Robinson-Bassey Grace C, Edet OB. Nursing Informatics Education and Use: Challenges and Prospects in Nigeria. Global Journal of Pure and Applied Sciences 2015;21(2):171-179. [Crossref]
24. Adeleke IT. Relevance of health information management (HIM) and the roles of HIM professionals in healthcare delivery systems. Presented at: 1st Convocation Lecture in Honour of Health Information Management Students, School of Health Technology, Minna. Niger State. Nigeria 2014;1. [Crossref]
25. Abu Ali RM, Abed MA, Khalil AA, Al-Kloub MI, Ashour AF, Alnsour IA. A Survey on Sexual Counseling for Patients With Cardiac Disease Among Nurses in Jordan. J Cardiovasc Nurs 2018;33(5):467-473. [Crossref]
26. Rabelo-Silva ER, Dantas Cavalcanti AC, Ramos Goulart Caldas MC, Lucena AF, Almeida MA, Linch GF, et al. Advanced Nursing Process quality: Comparing the International Classification for Nursing Practice (ICNP) with the NANDA-International (NANDA-I) and Nursing Interventions Classification (NIC). J Clin Nurs 2017;26(3-4):379-387. [Crossref]
27. Azevedo OA, Guedes ÉS, Araújo SAN, Maia MM, Cruz DALMD. Documentation of the nursing process in public health institutions. Rev Esc Enferm USP 2019;53:e03471. [Crossref]
28. De Melo LS, Da Silva Figueiredo L, De Melo Vellozo Pereira J, Flores PVP, Cavalcanti ACD. Effect of an Educational Program on the Quality of Nursing Process Recording. ACTA Paulista de Enfermagem 2019;32(3):246-253. [Crossref]

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ORIGINAL ARTICLE

The Effect of Basic Human Values to Readiness for Interprofessional Learning: A Cross-sectional Survey Among Pre-graduate Health Professions Students

Temel İnsani Değerlerin Meslekler Arası Öğrenmeye Hazır Olmaya Etkisi: Mezuniyet Öncesi Sağlık Mesleği Öğrencileri Arasında Kesitsel Bir Araştırma

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Abstract

Objective: This research aimed to determine human values and readiness for interprofessional learning among pre-graduate students studying in the field of health and the relationship between them.

Method: The data were collected using a questionnaire containing the socio-demographic characteristics of the students (n=444), the human values scale (HVS) and the interprofessional learning readiness scale (RIPLS). Descriptive statistics, independent sample t-test, One-Way ANOVA test and Pearson Correlation test were used to evaluate the data.

Results: The average age of the students participating in the study is 22.52±1.19, 76.4% of them are women and 33.4% of them study in the nursing department. It was found that the students' total HVS score was 157.61±15.52 and the total RIPLS score was 75.11±10.89. It was determined that HVS scores were significantly higher in females, and those under 24 years old, while the HVS total score was significantly lower in medical school students. It was found that the RIPLS scores of the faculty of medicine students and students aged 24 and over were significantly lower. When the relationship between the students' HVS and RIPLS scores was examined, it was found that there was a moderately significant positive correlation.

Conclusion: Educators' seeing the human values and readiness levels of students can guide them in determining the goals of the education they will give and the teaching method they will use.

Keywords: Health profession students, human values, interprofessional learning, readiness

Öz

Amaç: Bu araştırma, sağlık alanında öğrenim gören lisans öğrencilerinin insani değerleri ve meslekler arası öğrenmeye hazır bulunuşluklarını ve aralarındaki ilişkiyi belirlemeyi amaçlamıştır.

Yöntem: araştırma kesitsel tipte tanımlayıcı tipte yapılmıştır. Örneklemi bir devlet üniversitesindeki son sınıf sağlık mesleği öğrencileri oluşturmuştur (n=444). Veriler, öğrencilerin sosyo-demografik özelliklerini içeren bir anket, insani değerler ölçeği (HVS) ve meslekler arası öğrenmeye hazırlık ölçeği (RIPLS) kullanılarak toplanmıştır. Verilerin değerlendirilmesinde tanımlayıcı istatistikler, independent sample t-testi, One-Way ANOVA testi ve Pearson Correlation testi kullanılmıştır.

Bulgular: Araştırmaya katılan öğrencilerin yaş ortalaması 22,52±1,19 olup, %76,4'ü kadın, %33,4'ü hemşirelik bölümünde öğrenim görmektedir. Öğrencilerin toplam HVS puanı ortalamsının 157,61±15,52 ve toplam RIPLS puanı ortalamasının 75,11±10,89 olduğu bulunmuştur. HVS puanlarının kadınlarda ve 24 yaş altındaki öğrencilerde anlamlı olarak daha yüksek olduğu, Tıp fakültesi öğrencilerinde ise HVS toplam puanının anlamlı olarak daha düşük olduğu belirlenmiştir. Tıp fakültesi öğrencileri ile 24 yaş ve üzeri öğrencilerin RIPLS puanlarının anlamlı düzeyde düşük olduğu bulunmuştur. Öğrencilerin HVS ve RIPLS puanları arasındaki ilişki incelendiğinde orta düzeyde anlamlı bir pozitif korelasyon olduğu görülmüştür.

Sonuç: Eğitimcilerin öğrencilerin insani değerlerini ve hazır bulunuşluk düzeylerini görmeleri, verecekleri eğitimin amaçlarını ve kullanacakları öğretim yöntemini belirlemede onlara rehberlik edebilir.

Anahtar Kelimeler: Sağlık mesleği öğrencileri, insani değerler, meslekler arası öğrenme, hazır bulunuşluk

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Introduction

The most important aim of health services is to ensure that the patient receives quality care and treatment. Hierarchical problems among professional members and disconnections between professions constitute an important obstacle to patient safety. For this reason, raising health profession members who are ready for interprofessional work is important in terms of increasing the efficiency and quality of health services offered to the public (1). Interprofessional education enables students of two or more professions to learn with each other. It aims to ensure that each professional member recognizes and respects the roles of other team members by prioritizing teamwork, integration, and flexibility in the workforce (2,3). Some obstacles such as lack of administrative support, difficulty in bringing students together, insufficient time and financial support affect interprofessional education (4).

Although many values, knowledge and skills are common for students who will become members of the health profession, most universities consider these professional groups to be independent of each other. For this reason, health professionals are trained in independent training programs without knowing each other's duties, authorities and responsibilities (5).

Value is defined as a belief that guides the selection or evaluation of behaviors, people and events and belongs to desired ends or behavior patterns. The theory of human values has identified ten values that differ based on motivation, including self-direction, drive, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism. With this theory, human values; it is stated that it is important as guiding principles in the lives of individuals and groups in the cognitive realization of goals, with an out-of-situation and independent behavior. Values not only ensure a healthy functioning of the social order and social mechanism, but also mediate the acquisition of acceptable behaviors with inter-individual commitment and solidarity (6).

Main Points

- For the healthcare team to show interprofessional learning behavior, which is one of the indispensable requirements of the healthcare team, it is important that the healthcare team members have similar humane values such as respect for another member of the team, being peaceful and friendly.
- The human values and readiness levels for interprofessional learning of the students studying in different departments related to the field of health differed. Students with high human values are more prepared for interprofessional learning.
- It is very important to integrate skills, knowledge and values such as mutual respect, social justice, team participation into the curriculum so that undergraduate students are ready for interprofessional work.
- The results of this study can guide educators to see the human values of students and the level of readiness of students, to determine the aims of the education they will give and the teaching method they will use.

People's perceptions that they share the values of others lead to a higher sense of commitment, greater participation, and more positive attitudes towards opposition. Perceived value similarity is an important factor in shaping people's sense of connectedness with others. Feelings of commitment increase the desire to do one's share and help others (7).

All professions that make up the healthcare team need to learn the roles and responsibilities of other health professions in the team and the importance of working as a team, as well as their professional education during their student years (8). It is thought that individuals who value important concepts such as respect, friendship and honesty will be more respectful and sensitive to other professionals and will be willing to learn the professions of others.

For determine the effect of the human values of pre-graduate students who will be members of the health profession on their readiness for interprofessional learning, the following two research questions were used to guide this study.

1) What is the effect of the human values on their readiness for interprofessional learning?

2) Is there a relationship between students'

the human values and their readiness for interprofessional learning?

Material and Method

Research Design

In this descriptive and cross-sectional study, we aimed to determine the human values and readiness levels for interprofessional learning and the relationship between them in the group of pre-graduate students studying in the field of health.

Participants

The research was conducted on the students of the faculty of health sciences and faculty of medicine of a state university in November 2019. The population of the research was the final year students studying in the Faculty of Medicine (6th grade), Physical Therapy and Rehabilitation (4th grade), Nursing (4th grade) and Midwifery (4th grade) departments of a state university (n=596). The sample consisted of 444 students who were willing to participate in the research. In the Power analysis performed to determine the power of the research sample (n=444), it was determined that the sample size was sufficient for this study and provided 98% power, in the 5% effect size and 95% confidence interval (G*Power 3.0.10).

Questionnaire and Scoring

As a data collection tool in the study, descriptive form (participants' age, gender, department they studied, etc.), human values scale (HVS) and readiness for interprofessional learning scale (RIPLS) were used.

HVS

In this study, the HVS, developed by Dilmac (9), was used to determine the human values of students in Turkey. In the scale, the process of human values is measured with a total of 42 items in six dimensions as responsibility, friendship, peaceable, respect, honesty and Tolerance. There are 7 items in each sub-dimension. The scale is a five-point Likert type (1= never, 2= rarely, 3= sometimes, 4= often, 5= always), the total scores that can be obtained from the scale range from 42 to 210. A high total score indicates that individuals have more human values (9). The Cronbach's alpha value of the scale in this study was 0.84.

RIPLS

The scale was revised by McFadyen et al. (10). The Turkish adaptation of the scale was made by Onan (11). The scale, which has 3 sub-dimensions: Teamwork and collaboration, professional identity, roles, and responsibilities, consists of 19 items. Five-point ratings are used in scoring (1= strongly disagree, 2= disagree, 3= undecided, 4= agree and 5= strongly agree), the total scores that can be obtained from the scale range from 19 to 95. The cut-off point of the scale is 60 points, and it is accepted that the higher the score is, the higher the students' readiness for interprofessional learning levels will be. The Cronbach's alpha value of the scale in this study was 0.87.

Data Collection

The scales were distributed to the students outside of class hours, in the classroom environment, after the purpose of the research was explained. It was explained to the students that participation was entirely voluntary, and those who wanted to participate were asked to read and answer the questions carefully. Filling out the questionnaires took approximately 10-15 minutes.

Statistical Analysis

Research data were evaluated using the IBM Statistical Package for the Social Sciences package program (IBM SPSS v26.0). In the evaluation of the demographic data obtained, frequencies (number, percentage) were used for categorical variables and descriptive statistics [mean, standard deviation (SD)] were used for numerical variables. Independent-samples t-test and One-Way ANOVA tests were used to compare quantitative continuous data between independent groups. Relationships between scales were evaluated using Pearson Correlation Analysis. Statistical significance cut-off value was accepted as $p<0.05$.

Ethical Consideration

Legal permissions and Faculty of Medicine Clinical Research Ethics Committee of Süleyman Demirel University approval (number: 72867572.050.01.04-69337) were obtained from the relevant institution to conduct the research. The students were informed that their participation in the study was on a voluntary basis, that they could terminate their participation at any point, and that the information they provided would not be used outside the research, and their consent was obtained.

Results

It was determined that the students studying in the last year in the field of health scored above the average in the sub-dimensions of responsibility (M=26.37, SD=3.82), friendship (M=27.69, SD=4.26), peaceable (M=27.32, SD=3.55), respect (M=27.18, SD=4.21), honesty (M=22.95, SD=3.15) and tolerance (M=26.06, SD=3.32), and their human values were generally at a good level (M=157.61, SD=15.52) (Table 1).

It was determined that the students studying in the last year in the field of health scored above the average in

Table 1.
Sub-scales of the Human Values Scale (HVS) and Sub-scales of the Readiness for Interprofessional Learning Scale (RIPLS)

	Min	Max	Mean	SD
Sub-scales of the HVS				
Responsibility	11.00	35.00	26.37	3.82
Friendship	12.00	35.00	27.69	4.26
Peaceable	11.00	35.00	27.32	3.55
Respect	12.00	35.00	27.18	4.21
Honesty	14.00	35.00	22.95	3.15
Tolerance	14.00	35.00	26.06	3.32
Total score	86.00	210.00	157.61	15.52
Sub-scales of RIPLS				
Teamwork and collaboration	15.00	45.00	38.13	6.33
Professional identity	7.00	35.00	26.96	4.76
Roles and responsibilities	3.00	15.00	10.01	2.53
Total score	36.00	95.00	77.11	10.89

SD=standard deviation

Table 2.
Comparison of HVS and RIPLS Mean Scores of Participants

Human values scale (HVS)									**Readiness for Interprofessional Learning Scale (RIPLS)**		
Socio-demographic charasteristics	**n**	**%**	**Total score χ ± SD**	**Responsibility χ ± SD**	**Friendship χ ± SD**	**Peaceable χ ± SD**	**Respect χ ± SD**	**Honesty χ ± SD**	**Tolerance χ ± SD**	**Total score χ ± SD**	**Teamwork collaboration χ ± SD**	**Professional identity χ ± SD**	**Roles and responsibilities χ ± SD**
Age range													
23 and ↓[a]	357	80.4	158.80±14.47	26.58±3.68	28.07±4.07	27.52±3.45	27.40±3.85	22.96±3.25	26.25±3.18	76.36±10.43	38.65±6.10	27.47±4.49	10.19±2.51
24 and ↑[b]	87	19.6	152.72±18.54	25.51±4.23	26.17±4.66	26.54±3.88	26.28±5.36	22.91±2.71	25.28±3.76	70.01±11.32	35.87±6.78	24.87±5.25	9.26±2.50
			t=3.316 p=0.001 a>b	**t=2.356 p=0.019 a>b**	**t=3.780 p=0.000 a>b**	**t=2.317 p=0.021 a>b**	**t=2.380 p=0.026 a>b**	t=0.575 p>0.05	**t=2.446 p=0.015 a>b**	**t=5.006 p=0.000 a>b**	**t=3.768 p=0.000 a>b**	**t=4.680 p=0.000 a >b**	**t=3.104 p=0.002 a>b**
Gender													
Female[a]	339	76.4	158.79±14.76	26.59±3.67	27.84±4.17	27.67±3.43	27.32±4.14	23.03±3.23	26.33±3.17	75.63±11.29	38.27±6.50	27.30±4.83	10.04±2.54
Male[b]	105	23.6	153.80±17.27	25.68±4.19	27.23±4.50	26.20±3.73	26.74±4.39	22.71±2.86	25.20±3.65	73.45±9.32	37.68±5.26	25.86±4.36	9.90±2.52
			t=2.908 p=0.004 a>b	**t=2.134 p=0.033 a>b**	t=1.267 p>0.05	**t=3.744 p=0.000 a>b**	t=1.244 p>0.05	t=0.904 **p>0.05**	**t=3.045 p=0.002 a>b**	t=1.791 p>0.05	t=0.832 p>0.05	**t=2.731 p=0.007 a>b**	t=0.503 p>0.05
Department of education													
Nursing[a]	148	33.4	158.92±15.27	26.08±4.19	28.14±3.97	27.47±3.71	27.42±3.93	21.1±3.37	26.61±3.47	78.82±8.61	39.66±4.87	28.56±3.78	10.59±2.17
Medical school[b]	101	22.7	152.35±17.39	25.55±3.96	26.06±4.45	26.52±3.38	25.86±4.91	22.78±2.79	25.56±3.65	68.85±11.33	35.44±7.04	23.96±5.16	9.44±2.46
Midwifery[c]	91	20.5	159.84±14.1	27.24±3.37	28.40±4.36	27.89±3.45	27.50±4.28	22.7±3.54	26.06±2.81	72.97±11.90	36.89±7.51	27.09±4.74	8.98±2.41
Physiotherapy and rehabilitation[d]	104	23.4	158.91±14.06	26.84±3.30	28.02±4.02	27.41±3.49	27.86±3.51	22.99±2.78	25.76±3.11	77.79±9.30	39.66±5.20	27.56±4.33	10.63±2.78
			F=5.231 p=0.001 a,c,d>b	F=4.012 **p=0.008 c>b**	F=6.755 **p=0.000 a,c,d>b**	F=2.604 p>0.05	F=4.681 **p=0.003 a,c,d>b**	F=0.522 p>0.05	F=2.407 p>0.05	F=23.134 **p=0.000 a,d>b,c a,c,d>b**	F=13.115 **p=0.000 a,d>b,c**	F=22.216 **p=0.000 a,c,d>b**	F=12.178 **p=0.000 a,d>b,c**

F=One-Way ANOVA test, t=Independet Student's t-test, p<0.05 significant value, SD=standard deviation

the sub-dimensions of teamwork and collaboration (M=38.13, SD=6.33), professional identity (M=26.96, SD=4.76) and roles and responsibilities (M=10.01, SD=2.53), and their readiness for interprofessional learning status were generally at a good level (M=77.11, SD=10.89) (Table 1).

The mean age of the participants was 22.52±1.19, with 76.4% women and 33.4% nursing students. In the study, it was found that the students in the age group of 23 years and younger had significantly higher HVS total scores than the students in the age group of 24 years and above (t=3.316, p=0.001). In addition, it was determined that the responsibility (t=2.356, p=0.019), friendship (t=3.780, p=0.000), peaceable (t=2.317, p=0.021), respect (t=2.380, p=0.026) and tolerance (t=2.446, p=0.015) sub-dimension mean scores of students aged 23 and under and the HVS total scores (t=2.908, p=0.004) and responsibility (t=2.134, p=0.033), peaceable (t=3.744, p=0.000) and tolerance subscale (t=3.045, p=0.002) mean scores of females were significantly higher. Nursing, midwifery, physiotherapy and rehabilitation department students' total score averages of HVS total scores (F=5.231, p=0.001) and friendship (F=6.755, p=0.000) and respect (F=4.681, p=0.003) sub-dimensions were significantly higher than medical school students' mean scores. In addition, midwifery department students' average scores on the responsibility sub-dimension (F=4.012, p=0.008) were found to be significantly higher than those of medical school students (Table 2).

It was determined that the mean scores of the total (t=5.006, p=0.000) and all sub-dimensions of the RIPLS scale [teamwork and collaboration (t=3.768, p=0.000), professional identity (t=4.680, p=0.000), roles and responsibilities (t=3.104, p=0.002)] were statistically significantly higher in students aged 23 and younger than students aged 24 and over. It was found that the professional identity sub-dimension mean score of

Table 3.
Correlation of Human Values Scale (HVS) and Readiness for Interprofessional Learning Scale (RIPLS) (n=444)

	HVS						
	Total score	**Responsibility**	**Friendship**	**Peaceable**	**Respect**	**Honesty**	**Tolerance**
RIPLS							
Total score	r=0.487 **p=0.000**	r=0.337 **p=0.000**	r=0.398 **p=0.000**	r=0.345 **p=0.000**	r=0.414 **p=0.000**	r=0.243 **p=0.000**	r=0.252 **p=0.000**
Teamwork and collaboration	r=0.491 **p=0.000**	r=0.344 **p=0.000**	r=0.412 **p=0.000**	r=0.346 p=0.000	r=0.457 **p=0.000**	r=0.208 **p=0.000**	r=0.221 p=0.000
Professional identity	r=0.411 **p=0.000**	r=0.291 **p=0.000**	r=0.338 **p=0.000**	r=0.290 **p=0.000**	r=0.329 **p=0.000**	r=0.215 p=0.000	r=0.220 **p=0.000**
Roles and responsibilities	r=0.093 p>0.05	r=0.030 p>0.05	r=0.044 p>0.05	r=0.075 p>0.05	r=0.017 p>0.05	r=0.119 p=0.012	r=0.118 p=0.013

p<0.05 significant value

women (t=2.731, p=0.007) was significantly higher than that of men. Interprofessional readiness scale total (F=23.134, p=0.000) and all sub-dimensions mean scores (teamwork and collaboration (F=13.115, p=0.000), professional identity (F=22.216, p=0.000), roles and responsibilities (F=12.178, p=0.000) differed according to the department on which the students studied. Accordingly, RIPLS total and sub-dimension scores of nursing, physiotherapy and rehabilitation department students were compared to midwifery and medical school students' scores; it was found that the scores of the students of the midwifery department were significantly higher than the scores of the medical school students. In addition, the scores of nursing and physiotherapy and rehabilitation department students in teamwork and collaboration and roles and responsibilities sub-dimension were higher than the scores of medical school and midwifery students. It was found that the scores of medical school students in the professional identity sub-dimension were significantly lower than the students of other departments (Table 2).

It was determined that there was a moderately positive and significant relationship between students' HVS scores and RIPLS scores (r=0.487, p<0.000). Table 3 also shows the correlation results for the sub-dimensions of the scales. According to this result, as students' HVS scores increase, their readiness for interprofessional learning also increases.

Discussion

This research was carried out to determine the human values and readiness for inter-professional learning and the relationship between them.

In our study, it was determined that female students had more human values in the total score with the sub-dimensions of responsibility, peacefulness and tolerance compared to male students. In a study conducted by Dereli and Aypay (12), it was determined that female students exhibit more human values than males. In the study of Páez Gallego et al. (13), the values of self-management, helpfulness, relevance, success and tradition were found to be higher in the female group. These results can be explained by Guilligan's (14) ethics of women. According to Guilligan (14), moral development is based on the principle of responsibility for women and the principle of justice for men. However, this idea is rejected by Kolhberg, who proposes a similar model of moral development for both sexes.

In the study, it was found that the students in the age group of 23 years and younger had significantly higher HVS total scores than the students in the age group of 24 years and above. It is reported in the literature that the meanings of values in human life can change systematically depending on age (15).

When the differences between the HVS scores of the students according to the occupational groups are evaluated, it is seen that the medical school students have lower human values than the other students. In studies conducted in Turkey, it has been determined that physicians show destructive physician behaviors such as scolding, shouting, not showing respect and courtesy to nurses, selfish and egoistic, and nurses are negatively affected (16). It is seen that stressors are relatively higher in medical faculties compared to other faculties due to the difficulty of education, the intensity of the courses and the presence of practical courses in addition to the theoretical courses. In this case, it can be said that students can enter into emotional burnout, and this may result in the loss of some values.

According to Talwalkar et al. (17), Judge et al. (18) and Al-Qahtani (19) reported that RIPLS scores do not differ according to age. Hudson et al. (20) found that although students have a higher enthusiasm for interprofessional education at the beginning of their education, they are less open to interprofessional learning over the years.

As for gender, Talwalkar et al. (17), Judge et al. (18) and Keshtkaran et al. (21) determined that students differ in terms of RIPL by gender, and female students have higher RILP scores than male students. Hojat et al. (22), in their study on health students using the Jefferson scale of Attitudes Toward Interprofessional Collaboration (Jeff SATIC), determined that female students scored higher than male students in terms of cooperation. These results are generally thought to be because women are more inclined to listen to others, trust them, and seek their views while learning. Similarly in the literature, Hojat et al. (22), Kesthkaran et al. (21) and Judge et al. (18) found that students' RILP status differs between departments, and medical school students' interprofessional readiness is lower. In addition, it is reported that medical students tend to be less enthusiastic about interprofessional education, have more negative attitudes, and be more protective of their own professional education, and nursing students are more open to interprofessional cooperation (21,23,24).

Students who received interprofessional training, both face-to-face and online, reported that this training program improved their communication with their colleagues and other members of the profession, and they were better prepared for professional life (25,26). The World Health Organization also reports that interprofessional cooperation gives good results in family health and in the management of infectious or non-communicable diseases (27).

In this study, it was determined that students with high human values also have high levels of readiness for interprofessional learning. Values such as responsibility, respect, and tolerance, which are among human values, are values that can directly affect the sub-dimensions of Teamwork and collaboration and Roles and responsibilities in RIPL. The importance that individuals attach to values such as responsibility, friendship, being peaceful, respect, honesty and tolerance affects their interpersonal relationships. For good cooperation between the professions to be possible, the members of the profession should have these human values at a high level individually. In this respect, it is expected that the readiness for professional learning of professionals with high human values will be high.

Study Limitations

The findings obtained from the study are limited to the sample of the study. Since there were differences between the student numbers of the departments in the school where the study was conducted, the number of students of the departments in the sample could not be kept equal.

Conclusion

In the study, it was determined that the human values and readiness levels for interprofessional learning of the students studying in different departments related to the field of health differed. Human values and readiness for interprofessional learning were lower in medical school students. Students with high humanitarian values also had a high readiness for interprofessional learning. This research provided students with the opportunity to increase their awareness of interprofessional learning and to evaluate their own level realistically. To successfully implement and ensure the sustainability of inter-professional education programs and activities, it is necessary to determine the wishes and readiness of the students in this regard. It is recommended to develop formal curricula for health professionals to offer integrated courses that include human values and ethics, understand each other's roles and responsibilities, improve interprofessional communication and motivate teamwork. Additionally, case events, memoirs, etc., involving altruism, compassion, respect and honesty. All students' awareness of human values can be increased by using such methods.

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References

1. Nelson S, White CF, Hodges BD, Tassone M. Interprofessional Team Training at the Prelicensure Level: A Review of the Literature. Acad Med 2017;92(5):709-716. [Crossref]
2. de Oliveira VF, Bittencourt MF, Navarro Pinto ÍF, Lucchetti ALG, da Silva Ezequiel O, Lucchetti G. Comparison of the Readiness for Interprofessional Learning and the rate of contact among students from nine different healthcare courses. Nurse Educ Today 2018;63:64-68. [Crossref]
3. Green BN, Johnson CD. Interprofessional collaboration in research, education, and clinical practice: working together for a better future. J Chiropr Educ 2015;29(1):1-10. [Crossref]
4. Palaganas JC, Epps C, Raemer DB. A history of simulation-enhanced interprofessional education. J Interprof Care 2014;28(2):110-115. [Crossref]

5. Davis D, Hercelinskyj G, Jackson L. Promoting interprofessional collaboration: A pilot project using simulation in the virtual world of second life. The Journal of Research in Interprofessional Practice and Education 2016;6(2):1-15. [Crossref]
6. Schwartz SH, Cieciuch J, Vecchione M, Davidov E, Fischer R, Beierlein C, et al. Refining the theory of basic individual values. J Pers Soc Psychol 2012;103(4):663-688. [Crossref]
7. Sanderson R, Prentice M, Wolf L, Weinstein N, Kasser T, Crompton T. Strangers in a Strange Land: Relations Between Perceptions of Others' Values and Both Civic Engagement and Cultural Estrangement. Front Psychol 2019;10:559. [Crossref]
8. Bridges DR, Davidson RA, Odegard PS, Maki IV, Tomkowiak J. Interprofessional collaboration: three best practice models of interprofessional education. Med Educ Online 2011;16(1):6035. [Crossref]
9. Dilmac B. Giving human values education to science high school students and testing them with the Human Values Scale. (Unpublished doctoral dissertation) University of Selcuk 2007;7(3). [Crossref]
10. McFadyen AK, Webster V, Strachan K, Figgins E, Brown H, McKechnie J. The Readiness for Interprofessional Learning Scale: a possible more stable sub-scale model for the original version of RIPLS. J Interprof Care 2005;19(6):595-603. [Crossref]
11. Onan A. The effect of simulation-based interprofessional learning on students' individual and team performance in Health Sciences Education. (Unpublished doctoral dissertation) 2015; University of Hacettepe 2019;25:139-148. [Crossref]
12. Dereli E, Aypay A. The prediction of empathetic tendency and characteristic trait of collaboration on humane values in secondary education students and the examining to those characteristics. Kuram ve Uygulamada Egıtım Bılımlerı 2012;12(2):1262-1270. [Crossref]
13. Páez Gallego J, De-Juanas Oliva Á, García-Castilla FJ, Muelas Á. Relationship Between Basic Human Values and Decision-Making Styles in Adolescents. Int J Environ Res Public Health 2020 ;17(22):8315. [Crossref]
14. Guilligan C. In a different voice. Cambridge, MA: Harvard University Press, 1982. [Crossref]
15. 15.Borg I. Age- and gender-related differences in the structure and the meaning of personal values. Personality and Individual Differences, 2019;138:336-343. [Crossref]
16. Dincel YM. Causes of conflict between physicians and nurses in working environments and management of conflicts. The Journal of Nursing Management 2019;3:256-265. [Crossref]
17. Talwalkar JS, Fahs DB, Kayingo G, Wong R, Jeon S, Honan L. Readiness for interprofessional learning among healthcare professional students. Int J Med Educ 2016;7:144-148. [Crossref]
18. Judge MP, Polifroni EC, Zhu S. Influence of student attributes on readiness for interprofessional learning across multiple healthcare disciplines: Identifying factors to inform educational development. International Journal of Nursing Sciences 2015;2(3):248-252. [Crossref]
19. Al-Qahtani MF. Measuring healthcare students' attitudes toward interprofessional education. The Journal of Taibah University Medical Sciences 2016;11(6):579-585. [Crossref]
20. Hudson JN, Lethbridge A, Vella S, Caputi P. Decline in medical students' attitudes to interprofessional learning and patient-centredness. Med Educ 2016;50(5):550-559. [Crossref]
21. Keshtkaran Z, Sharif F, Rambod M. Students' readiness for and perception of inter-professional learning: a cross-sectional study. Nurse Educ Today 2014;34(6):991-998. [Crossref]
22. Hojat M, Ward J, Spandorfer J, Arenson C, Van Winkle LJ, Williams B. The Jefferson Scale of Attitudes Toward Interprofessional Collaboration (JeffSATIC): development and multi-institution psychometric data. J Interprof Care 2015;29(3):238-244. [Crossref]
23. Curran VR, Sharpe D, Flynn K, Button P. A longitudinal study of the effect of an interprofessional education curriculum on student satisfaction and attitudes towards interprofessional teamwork and education. J Interprof Care 2010;24(1):41-52. [Crossref]
24. Wilhelmsson M, Ponzer S, Dahlgren LO, Timpka T, Faresjö T. Are female students in general and nursing students more ready for teamwork and interprofessional collaboration in healthcare? BMC Med Educ 2011;11(1):1-10. [Crossref]
25. Lee AL, DeBest M, Koeniger-Donohue R, Strowman SR, Mitchell SE. The feasibility and acceptability of using virtual world technology for interprofessional education in palliative care: a mixed methods study. J Interprof Care 2020;34(4):461-471. [Crossref]
26. Smithburger PL, Kane-Gill SL, Kloet MA, Lohr B, Seybert AL. Advancing interprofessional education through the use of high fidelity human patient simulators. Pharm Pract (Granada) 2013;11(2):61-65. [Crossref]
27. World Health Organization. (2010, December 21) Framework for action on interprofessional education and collaborative practice 2010. [Crossref]

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ORIGINAL ARTICLE

Analyzing the Relationship Between Hand Hygiene Beliefs and Practices and Adherence to Isolation Precautions in Dialysis Professionals

Diyaliz Ünitelerinde Çalışanların El Hijyeni Uygulamaları ve İzolasyon Önlemlerine Uyum Düzeylerinin Belirlenmesi

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Abstract

Objective: This study aims to evaluate the relationship between the hand hygiene beliefs and practices of dialysis professionals and their adherence to isolation precautions.

Method: Healthcare professionals working in dialysis units in Turkey and Northern Cyprus constituted the population. Snowball sampling technique was used to determine the sample, which included 127 nurses and hemodialysis technicians that could be accessed online after obtaining the approval of ethical committee. Descriptive information form, Compliance with isolation precautions scale (CIPS), hand hygiene beliefs scale (HHBS) and hand hygiene practices inventory (HHPI) were used for data collection.

Results: Participants were predominantly female (92.1%), 47.2% had an associate degree or below, 51.2% were nurses, and 33.1% worked at a state hospital. Besides, 55.1% received in-house education on isolation precautions, and 96.9% reported the existence of visual orders about hand hygiene and isolation precautions in the unit. The mean scores obtained from the HHBS, HHPI and CCIPS were 96.19±8.1, 62.72±5.29 and 74.72±12.57, respectively. There was a positive and statistically significant correlation between the HHBS, HHPI and CIPS scores ($p<0.05$).

Conclusion: The study found that health professionals working in dialysis units had positive hand hygiene beliefs and high levels of hand hygiene practice and adherence to isolation precautions. Besides, the participants with positive hand hygiene beliefs had also high level of adherence to isolation precautions. Similarly, hand hygiene practice was positively associated with adherence to isolation precautions. Therefore, further observational studies in different clinical centers may be conducted to contribute to the literature.

Keywords: Hand hygiene, isolation precaution, hemodialysis unit, health professionals, adherence, belief

Öz

Amaç: Bu çalışma; diyaliz ünitesinde çalışanların el hijyeni uygulama durumlarını, el hijyeni inançlarını ve izolasyon yöntemlerine uyum düzeylerini belirleyerek aralarındaki ilişkiyi incelemek amacıyla planlanmıştır.

Yöntem: Araştırmanın evrenini, Türkiye ve Kuzey Kıbrıs Türk Cumhuriyeti'nde diyaliz ünitelerinde çalışan sağlık çalışanları oluşturmuştur. Çalışmanın örneklemini ise etik kurul iznini takiben 6 ay sürede olasılıksız örnekleme yöntemlerinden kartopu yöntemi kullanılarak online adreslerden ulaşılabildiğimiz hemşire ve diyaliz teknikerleri oluşturmuştur (n=127). Verilerin toplanmasında; tanıtıcı özellikler bilgi formu, izolasyon önlemlerine uyum ölçeği (İÖUÖ), el hijyeni inanç ölçeği (EHİÖ) ve el hijyeni uygulama envanteri (EHUE) kullanılmıştır.

Bulgular: Araştırmaya katılan sağlık çalışanlarının %92,1'inin kadın, %47,2'sinin ön lisans veya altı bir okuldan mezun olduğu, %51,2'sinin hemşire, %33,1'inin bir devlet hastanesinde çalışmakta olduğu belirlendi. Ayrıca %55,1'inin izolasyon hakkında kurum içi eğitim aldığı, %96,9'unun çalıştığı klinikte el hijyeni ve izolasyon yöntemleri hakkında görsel talimatların olduğu saptandı. Sağlık çalışanlarının EHİÖ toplam puan ortalamalarının 96,19±8,1, EHUE toplam puan

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ortalamalarının 62,72±5,29 ve İÖUÖ toplam puan ortalamalarının da 74,72±12,57 puan olduğu belirlendi. Sağlık çalışanlarının EHİÖ ve EHUE ile İÖUÖ'den alınan puanlar arasında istatistiksel olarak anlamlı ve pozitif yönlü korelasyon olduğu tespit edildi (p<0,05).

Sonuç: Diyaliz ünitesinde çalışan sağlık çalışanlarının el hijyeni inançlarının olumlu, el hijyeni uygulama durumlarının yüksek ve izolasyon önlemlerine uyumlarının da iyi düzeyde olduğu belirlenmiştir. Ayrıca el hijyeni inancı olumlu olan sağlık çalışanlarının izolasyon yöntemlerine uyumları da iyi düzeyde bulunmuştur. Benzer şekilde el hijyeni uygulama durumu arttıkça izolasyon önlemlerine uyumun da arttığı görülmüştür. Bu noktada farklı kliniklerde gözlemsel çalışmalar yapılarak literatüre katkı sağlanması önerilir.

Anahtar Kelimeler: El hijyeni, izolasyon önlemleri, diyaliz ünitesi, sağlık çalışanları, bağlılık, inanç

Introduction

Hand hygiene and adherence to isolation precautions are the common interventions to reduce the risk of disease transmission in a health care center (1,2). Isolation precautions may be grouped into standard precautions and the precautions for specific patient groups (3). Standard precautions refer to precautions that may be applied to all patients regardless of diagnosis or infection. These precautions are taken to eliminate risks that can be transmitted via blood, blood products or body fluids (3,4). Adherence of health professionals to both hand hygiene and isolation precautions are vital for their protection against nosocomial infections (2). Existing studies have reported that adherence to hand hygiene is affected by a number of factors, including, personal characteristics and professional experiences of health professionals, workload, lack of and distance to hygiene equipment, inadequate knowledge on hand hygiene and patient turnover (5,6). On the other hand, studies on the adherence to isolation precautions reported conflicting findings in different countries, which may be caused by the level of development and working conditions in different countries, the number, experience and education levels of health professionals, facilities of health centers, and the health and education policies (2,3,7-11).

Infections are the second leading cause of mortality in patients undergoing hemodialysis in dialysis units so that infection risks should be reduced in these units (12). During a working day, patients from different units are admitted to the dialysis units and are transferred back to their units or discharged after treatment. High patient turnover may decrease the adherence to hand hygiene and isolation precautions in dialysis units. Insufficient information about the isolation needs of patients that are admitted to dialysis units may adversely affect infection precautions. Weaker immune system of dialysis patients increases the risk of transmission for both the patients and health professionals.

Main Points

- Adherence of health professionals to both hand hygiene and isolation precautions are vital for their protection against nosocomial infections.
- Infections are the second leading cause of mortality in patients undergoing hemodialysis in dialysis units so that infection risks should be reduced in these units.
- High patient turnover may decrease the adherence to hand hygiene and isolation precautions in dialysis units. Insufficient information about the isolation needs of patients that are admitted to dialysis units may adversely affect infection precautions.

At this point, adherence to hand hygiene and isolation precautions become even more important. Due to these reasons, this study aims to analyze the relationship between the hand hygiene beliefs and practices and the adherence to isolation precautions in healthcare professionals working in dialysis units. Within this context, the study aimed to answer the following questions:

1. What is the level of adherence to isolation precautions in dialysis professionals?

2. What is the level of hand hygiene beliefs in dialysis professionals?

3. What is the level of hand hygiene practice in dialysis professionals?

4. Is there a relationship between hand hygiene beliefs and practices of dialysis professionals and their adherence to isolation precautions?

Material and Methods

Objectives
This study aimed to evaluate the relationship between the hand hygiene beliefs and practices of dialysis professionals and their adherence to isolation precautions.

Research Design
The study had a descriptive-correlational design.

Population and Sampling
Healthcare professionals working in dialysis units in Turkey and Northern Cyprus constituted the population. Snowball sampling technique was used to determine the sample, which included 127 nurses and hemodialysis technicians that could be accessed online after obtaining the approval of Ethical Committee of Eastern Mediterranean University (ETK00-2022-0238/02.11.2022). Nurses and dialysis technicians working in dialysis centers who volunteered to participate in the study were included in the study.

Data Collection Tools
Descriptive information form, compliance with isolation precautions scale (CIPS), hand hygiene beliefs scale (HHBS) and hand hygiene practices inventory (HHPI) were used for data collection.

Descriptive Information Form
The form was prepared by the researchers in line with the literature and asked 18 questions on age, gender, marital status, education level, education on isolation precautions and hand hygiene, problems with access to hand hygiene equipment and knowledge of five indication rules of CDC (2,3).

CIPS
CIPS was developed by Tayran and Ulupınar (13) and comprised 18 items in four subscales, namely, route of infection, practitioner-patient safety, environmental safety and hand-hygiene/glove use. Items were scored on a 5-point Likert scale. Possible scores ranged from 18 to 90, with higher scores indicating higher level of compliance with isolation precautions. Cronbach's alpha of the original scale and our study were 0.85 and 0.90, respectively (13).

HHBS
HHBS was developed by Thea van de Mortel (2009) and adapted to Turkish by Karadağ et al. (5) The scale had 22 items in two subscales, namely, hand hygiene beliefs and importance of hand hygiene. Items were scored on a 5-point Likert scale. Possible scores ranged from 22 to 110, with higher scores indicating more positive beliefs about hand hygiene. Cronbach's alpha of the Turkish version of HHBS and our study were 0.80 and 0.75, respectively (5).

HHPI
HHPI was also developed by Thea van de Mortel (2009) and adapted to Turkish by Karadağ et al. (5). The inventory has 14 items, which were scored on a 5-point Likert scale. Possible scores ranged from 14 to 70, with higher scores indicating that hand hygiene is always practiced. Cronbach's alpha of the Turkish version of HHPI and our study were 0.85 and 0.90, respectively (5).

Ethical Considerations
Approval of Eastern Mediterranean University Ethical Committee was obtained (ETK00-2022-0238/02.11.2022). Before data collection, voluntary informed consent in accordance with the Declaration of Helsinki was obtained.

Statistical Analysis
SPSS version 26.0 was used for data analysis. Mean, standard deviation and minimum and maximum values were used for numerical variables. Number and percentage were used for categorical variables. Frequency analysis was used for descriptive data on nurses and hemodialysis technicians. Descriptive statistics were used to present data on the scores obtained from CIPS, HHPI and HHBS. Pearson's correlation analysis was used to analyze the correlation between the scores obtained from the scales and subscales. Statistical significance was set at $p<0.05$.

Results

Findings About Descriptive Characteristics and Practices of Isolation Precautions and Hand Hygiene
Table 1 presented descriptive characteristics. Accordingly, 92.1% were female, 47.2% had an associate degree or below,

Table 1.
Descriptive Characteristics

		n	%
Gender	Female	117	92.1
	Male	10	7.9
Education level	Associate and below	60	47.2
	Undergraduate	51	40.2
	Graduate	16	12.6
Position	Nurse	65	51.2
	Hemodialysis technician	62	48,8
Works at	State hospital	42	33.1
	Training research hospital	15	11.8
	University hospital	18	14.2
	Private dialysis center	52	41.0
Length of professional experience (years) Mean 12.8±10.67	1-10	59	46.5
	11-20	38	29.9
	≥21	30	23.6
Length of experience in dialysis unit (years) Mean 8.46±8.36	1-5	62	50.8
	6-10	23	18.9
	≥11	37	30.3
Length of experience in current health center Mean 3.02±1.74	1-2	57	44.9
	3-4	20	15.7
	≥5	50	39.4

51.2% were nurses, and 33.1% worked at a state hospital. The mean length of professional experience, experience in a dialysis center and experience in the current health center were 12.8±10.67, 8.46±8.36 and 3.02±1.74 years, respectively.

Table 2 presented data on isolation precaution and hand hygiene practices. Accordingly, 55.1% received in-house education on isolation precautions, 96.9% reported the existence of visual orders about hand hygiene and isolation precautions in the unit and 97.6% evaluated the isolation status of admitted patients from different units. Besides, 92.9% of the participants expressed that they knew the isolation precaution visuals, 40.9% stated that their units employed the isolation methods of contact, droplet and respiration, 57.5% did not experience any problems during isolation precautions, but 81.9% had problems in access to hand hygiene equipment. Finally, 74% of the participants stated that they adhered to hand hygiene after exposure to body fluids.

HHBS, HHPI and CIPS Scores

Table 3 presented data on the scores obtained from the HHBS, HHPI and CIPS. Accordingly, the mean score obtained from the HHBS and its subscales of hand hygiene belief and importance of hand hygiene were 96.19±8.1, 31.48±4.8 and 64.68±4.9, respectively. The mean score obtained from the HHPI was 62.72±5.29. Finally, the mean scores obtained from the CIPS and its subscales of route of infection, practitioner-patient safety, environmental safety and the hand-hygiene/glove use were 74.72±12.57, 22.16±4. 25.58±4.59, 14.43±2.97, and 12.56±2.43, respectively.

Correlation between HHBS, HHPI and CIPS Scores

Table 4 presented the correlation between the HHBS, HHPI and CIPS. Accordingly, there was a positive and statistically significant correlation between the HHBS, CIPS and its subscales of route of infection, practitioner-patient safety, environmental safety and hand-hygiene/glove use ($p<0.05$). There was also a positive and statistically significant correlation between the scores obtained from the hand hygiene belief subscale of HHBS and the CIPS and its subscales ($p<0.05$). Besides, we found a positive and statistically significant correlation between the hand hygiene subscale of the HHBS and the CIPS and its subscales ($p<0.05$). Finally, we found a positive and statistically significant relationship between the HHPI and the CIPS

Table 2.
Isolation Precaution and Hand Hygiene Practices

		n	%
Type of education on isolation precautions	In-house education	70	55.1
	Vocational education	47	37
	Scientific meeting	10	7.9
Evaluated the isolation status of patients admitted from different units	Yes	124	97.6
	No	3	2.4
Knows the isolation figures	Yes	118	92.9
	No	9	7.1
Experienced difficulties during isolation practices	No	73	57.5
	Yes	54	47.5
Isolation methods in the unit	Contact	31	24.4
	Contact + droplet + respiration	52	40.9
	Contact + respiration	27	21.3
	Others	17	13.4
Existence of visuals about hand hygiene and isolation methods in the unit	Yes	123	96.9
	No	4	3.1
Uses for hand hygiene	Water and soap	83	65.4
	Hand sanitizer	44	34.6
Experiences problems in access to hand hygiene equipment	No	104	81.9
	Yes	23	18.1
Adherence to five indications rules	Before contact with the patient	61	48
	After contact with the patients	88	69.3
	Before aseptic procedures	73	57.5
	After exposure to body fluids	94	74
	After contact with the friends and relatives of patient	68	54

Table 3.
HHBS, HHPI and CIPS Scores

	Min-max	Mean ± SD	Cronbach's alpha
Hand hygiene belief subscale (HHBS)	21-40	31.48±4.8	0.75
HHBS importance of hand hygiene subscale	51-69	64.68±4.9	
HHBS total	73-109	96.19±8.1	
HHPI total	14-70	62.72±5.29	0.90
CIPS route of infection subscale	4-25	22.16±4.64	0.90
CIPS practitioner-patient safety subscale	16-30	25.58±4.59	
CIPS environmental safety subscale	6-19	14.43±2.97	
CIPS hand-hygiene/glove use subscale	6-15	12.56±2.43	
CIPS total	34-89	74.72±12.57	

SD=standard deviation, HHBS=hand hygiene belief subscale, CIPS=isolation precautions scale, HHPI=hand hygiene practices inventory

Table 4.
Correlation Between HHBS, HHPI and CIPS Scores

		HHBS	Hand hygiene belief subscale (HHBS)	Importance of hand hygiene subscale	HHPI
CIPS	**r** **p**	0.43 **0.00***	0.33 **0.00***	0.39 **0.00***	0.32 **0.00***
Route of infection subscale	**r** **p**	0.33 **0.00***	0.21 **0.00***	0.34 **0.00***	0.26 0.00*
Practitioner-patient safety subscale	**r** **p**	0.41 **0.00***	0.31 **0.00***	0.37 **0.00***	0.32 **0.00***
Environmental safety subscale	**r** **p**	0.35 **0.00***	0.31 **0.00***	0.26 0.00*	0.19 0.03
Hand-hygiene/glove use subscale	**r** **p**	0.40 **0.00***	0.34 **0.00***	0.32 **0.00***	0.32 **0.00***

*Pearson's correlation test, *p<0.05, CIPS=isolation precautions scale, HHPI=hand hygiene practices inventory*

and its subscales of route of infection, practitioner-patient safety and hand-hygiene/glove use (p<0.05).

Discussion

This study aims to analyze the relationship between the hand hygiene beliefs and practices and the adherence to isolation precautions in healthcare professionals working in dialysis units. The purpose of isolation precautions is to prevent the transmission of microorganisms from infected persons to patients, visitors and health professionals. As a vital element of health care, the adherence of nurses to isolation precautions is influenced by a number of factors, including adequate equipment, physical conditions and the number and qualifications of health professionals that provide care (8,10,14-17). Most of the participants of this study received in-house education on isolation, evaluated the isolation status of patients admitted from different units and knew about the isolation visuals. Additionally, 47.5% of the participants experienced difficulties during isolation practices and most participants reported that their units employed the isolation methods of contact, droplet and respiration (Table 2). Analysis of the CIPS scores revealed that the participants had a sufficient level of compliance with isolation precautions (Table 3). Analysis of the literature reveals conflicting findings. The studies of Erden et al. (2), Arli and Bakan (18), and Geçit and Özbayır (3) reported high levels of compliance with isolation precautions. On the other hand, Suliman et al. (8) found that nurses in Jordan had low levels of compliance with isolation precautions, whereas Özden and Özveren (10) reported moderate levels of compliance for Turkish nurses. These conflicting findings may be related with working conditions, availability of equipment and characteristics of healthcare professionals.

Analysis of the HHBS scores reveals that the participants had positive beliefs about hand hygiene (Table 3). Similarly, the studies of Kozik Çarıklı et al. (19), İkiışık et al. (20) and Karahan et al. (7) reported positive hand hygiene beliefs among health professionals.

Besides, the mean HHPI score was 62.72±5.29, indicating high level of hand hygiene practice (Table 3). In a similar vein, Kozik Çarıklı et al. (19), İkiışık et al. (20) and Karahan et al. (7) reported high levels of hand hygiene practice.

Adherence to isolation precautions and hand hygiene are among the most important practices to prevent the transmission of disease and increase patient safety, especially in hemodialysis units (17). This study found that isolation precautions had a positive and moderate correlation with hand hygiene beliefs (r=0.43) and a positive but a weak correlation with hand hygiene practices (r=0.32) (Table 4). In other words, and increase in hand hygiene beliefs and practices of the participants meant an increase in in adherence to isolation precautions. Besides, there was a positive correlation between CPIS, HHBS and HHPI scores, indicating an increase in adherence to isolation precautions parallel to an increase in the beliefs and practices of hand hygiene. Based on these findings, we may suggest that increase in hand hygiene beliefs and practices is associated with an increase in the adherence to isolation compliances.

Study Limitations

Data on adherence to isolation precautions and the beliefs and practices of hand hygiene were self-reported.

Conclusions

The study found that health professionals working in dialysis units had positive hand hygiene beliefs and high levels of hand hygiene practice and adherence to isolation precautions. Besides, the participants with positive hand hygiene beliefs had also high level of adherence to isolation precautions. Similarly, hand hygiene practice was positively associated with adherence to isolation precautions. Therefore, further observational studies in different clinical centers may be conducted to contribute to the literature. In addition, the compliance of the nurses, who are in contact with the patient for the longest time in health institutions, to hand hygiene and isolation measures is very important in ensuring and maintaining infection control. At this point, it is recommended to plan trainings regularly by hospital infection control committees.

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Ethics Committee Approval: Approval of Eastern Mediterranean University Ethical Committee was obtained (ETK00-2022-0238/02.11.2022).

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References

1. Gammon J, Hunt J. The neglected element of hand hygiene - significance of hand drying, efficiency of different methods and clinical implication: A review. J Infect Prev 2019;20(2):66-74. [Crossref]
2. Erden S, Kahraman BB, Bulut H. Yoğun Bakım Ünitelerinde Çalışan Doktor ve Hemşirelerin İzolasyon Önlemlerine Uyumlarının Değerlendirilmesi. Gümüşhane Üniversitesi Sağlık Bilim Derg 2015;4(3):388-398.
3. Geçit S, Özbayır T. Hemşire ve Hekimlerin İzolasyon Önlemlerine Uyumu, Compliance of Nursing and Physicians to Isolation Precautions. EGEHFD 2020;36(3):163-173. [Crossref]
4. Siegel JD, Rhinehart E, Jackson M, Chiarello L. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Health Care Settings. Am J Infect Control 2007;35:65-164. [Crossref]
5. Karadağ M, Yıldırım N, İşeri ÖP. El Hijyeni İnanç Ölçeği ve El Hijyeni Uygulamaları Envanterinin geçerlilik ve güvenirliliği. Cukurova Med J 2016;41(2):271-284. [Crossref]
6. Teker B, Ogutlu A, Gozdas HT, Ruayercan S, Hacialioglu G, Karabay O. Factors Affecting Hand Hygiene Adherence at a Private Hospital in Turkey. Eurasian J Med 2015;47(3):208-212. [Crossref]
7. Karahan E, Taşdemir N, Çelik S, Professor A. Original Article Factors Influencing Compliance with Isolation Precautions among Nurses who Work in Turkish Surgical Clinics. Int J Med Invest [Internet] 2019;8:31-39. [Crossref]
8. Suliman M, Aloush S, Aljezawi M, AlBashtawy M. Knowledge and practices of isolation precautions among nurses in Jordan. Am J Infect Control 2018;468(6):680-684. [Crossref]
9. Moriceau G, Gagneux-Brunon A, Gagnaire J, Mariat C, Lucht F, Berthelot P, et al. Prévention des infections associées aux soins : internes et médecins ont besoin de plus de formation pour les précautions complémentaires d'hygiène. Med Mal Infect 2016;46(1):14-19. [Crossref]
10. Özden D, Özveren H. Determining the Professional And Organizational Factors In Nurses' Compliance With Isolation Precautions. J Acad Res Nurs 2016;2:24-32. [Crossref]
11. Zencir G, Bayraktar D, Khorshid L. Nurses' Compliance with Isolation Precautions Worked in a Public Hospital. Ege Üniversitesi Hemşirelik Fakültesi Derg 2013;29(2):61-70. [Crossref]
12. Qin JJ, Xing YF, Ren JH, Chen YJ, Gan YF, Jiang YQ, et al. Mandatory Mask-Wearing and Hand Hygiene Associated With Decreased Infectious Diseases Among Patients Undergoing Regular Hemodialysis: A Historical-Control Study. Front Public Health 2021;9:678738. [Crossref]
13. Tayran N, Ulupınar S. Development of a Scale Study: Validity and Reliability of a Scale Compliance with Isolation Precautions. Florence Nightingale J Nurs 2011;2:89-98. [Crossref]

14. National Center for Health Statistics. Health, United States, 2020–2021: Annual Perspective. Health (Irvine Calif) 2023;1-32. [Crossref]
15. Barikani A, Afaghi A. Knowledge, attitude and practice towards standard isolation precautions among Iranian medical students. Glob J Health Sci 2012;4(2):142-146. [Crossref]
16. Aloush SM. Does educating nurses with ventilator-associated pneumonia prevention guidelines improve their compliance? Am J Infect Control 2017;45(9):969-973. [Crossref]
17. Scheithauer S, Eitner F, Mankartz J, Haefner H, Nowicki K, Floege J, et al. Improving hand hygiene compliance rates in the haemodialysis setting: more than just more hand rubs. Nephrol Dial Transplant 2012;27(2):766-770. [Crossref]
18. Arli SK, Bakan AB. Nurses' compliance with isolation precautions and the affecting factors. Appl Nurs Res 2017;38:175-178. [Crossref]
19. Kozik Çakırlı D, Öner C, Çetin H, Şimşek Ersin E. Evaluation of hand hygiene beliefs and compliance of primary care health care workers in Tuzla, Istanbul. Jour Turk Fam Phy 2022;13(3):96-103. [Crossref]
20. İkiışık H, Turan G, Taşğın AA, Kul A, Aydın FZ, Eliaçık M, et al. Evaluation of Hand Hygiene Belief and Practice of Nurses in a Hospital. Sağlık ve Toplum 2022;32(2):129-135. [Crossref]

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ORIGINAL ARTICLE

Comparison of Prenatal, Perinatal, and Postnatal Knowledge Levels of Pregnant Women and Their Distress Conditions

Gebelerin Gebelik, Doğum ve Sonrasına İlişkin Bilgi Düzeyleri ile Distres Durumlarının Karşılaştırılması

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Abstract

Objective: This research is a descriptive study conducted to investigate and compare the knowledge levels of pregnant women about pregnancy, childbirth and postpartum, and their distress.

Method: The sample of the study consisted of 178 pregnant women who applied to the obstetrics and gynecology polyclinic of a state hospital in Northern Cyprus, and the data were collected between January 1 and April 1, 2019. Data were collected through forms, which included the "Tilburg pregnancy distress scale (TPDS)", the "knowledge questions about pregnancy, birth, and postpartum" and socio-demographic and obstetric information of participants.

Results: The average number of right answers by pregnant women to the "knowledge questions about pregnancy, birth and postpartum" was 18.0±4.0 (3-26) out of a total of 32 items, indicating that pregnant women in Northern Cyprus had medium knowledge level on these issues. In addition, the average score for "TPDS was 13.6±6.7, out of a total of pregnant women participating in the study. The subscale, "TPDS" "partner involvement", "negative effect", and general scale scores are lower than the sub-limits determined for distress definition. Finally, it was observed that there is no relationship between the distress status and the level of knowledge by pregnant women (p>0.05).

Conclusion: The results of this study show that there is no relationship between the knowledge levels of pregnant women and their pregnancy-related distress.

Keywords: Prenatal education, pregnancy, pregnant women, midwifery, Tilburg pregnancy distress scale

Öz

Amaç: Bu çalışma; gebelerin, gebelik doğum ve doğum sonrasına ilişkin bilgi düzeyleri, distres durumlarının incelenmesi ve karşılaştırılması amacı ile yapılmış tanımlayıcı bir araştırmadır.

Yöntem: Araştırmanın örneklemini, Kuzey Kıbrıs'ta bir devlet hastanesinin kadın doğum servisi ve polikliniğine başvuran 178 gebe oluşturmuş, 1 Ocak-1 Nisan 2019 tarihleri arasında veriler toplanmıştır. Veriler; "Tilburg gebelikte distres ölçeği (TPDS), "gebelik, doğum süreci ve doğum sonrası bilgi soruları"nı ve katılımcıların sosyo-demografik, obstetrik bilgilerini içeren formlar ile toplanmıştır.

Bulgular: Gebelerin "hamilelik, doğum ve doğum sonrası bilgi soruları" na verdikleri ortalama doğru yanıt sayısı toplam 32 maddeden 18,0±4,0 (3-26) olup, Kuzey Kıbrıs'taki gebelerin bu konularda orta düzeyde bilgi sahibi olduklarını göstermektedir. Ayrıca çalışmaya katılan gebelerin TPDS puanı ortalaması 13,6±6,7 ve alt ölçeği, "partner katılımı", "olumsuz etki" ve genel ölçek puanları, distres tanımı için belirlenen alt sınırlardan düşüktür. Gebelerin distres durumu ile bilgi düzeyleri arasında ilişki olmadığı saptanmıştır (p>0,05).

Sonuç: Bu çalışmanın sonucları, gebelerin bilgi düzeyleri ile gebelikle ilgili distresleri arasında bir ilişki olmadığını göstermektedir.

Anahtar Kelimeler: Prenatal eğitim, gebelik, gebe kadın, ebelik, Tilburg gebelikte distres ölçeği

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Introduction

Pregnancy represents a new experience for every woman. The physical and hormonal changes that occur in a pregnant woman's body affect her daily life, diet, self-care needs, dressing, sleep and rest routine, work life, and social and family relationships (1). The birth of every child indicates the beginning of both an emotional and considerably challenging change and adaptation period. Expectant mothers experience positive emotions about the birth of their new baby. On the other hand, some women may undergo difficulties and experience normal or abnormal stress reactions as a result of their traumatic experiences (2).

The lack of information about pregnancy and birth period causes a rise the women whose going to be mothers have positive emotions about the birth of their new baby. On the other hand, some women may undergo difficulties and experience normal or abnormal stress reactions as a result of their traumatic experiences in anxiety, especially among nulliparous women, and affects the birth process. The main reason these women do not prefer a vaginal birth is the fear of birth pain and poor information (3,4). However, increasing psychological distress symptoms during pregnancy causes pregnancy-specific anxiety (5,6). In the study of Kaloğlu Binici and Köse Tuncer (7), they found that prenatal stress levels were higher in primiparas compared to multiparas, stress factors differed in both groups, and they recommended spousal-supported informative training on the role of motherhood.

The knowledge level of pregnant women about pregnancy is not affected by the hospitals and physicians they are followed, but by the age and educational status of the pregnant women (8). Therefore, the educational needs of pregnant women in the management of stress for childbirth may be related not only to their obstetric characteristics, but also to their educational status, age, and increased experience. Women benefit from the advice of the internet, familiar relatives and health personnel on many issues related to pregnancy (physical problems, nutrition, exercise, labor and fear) (9,10).

It is necessary to provide enough information and reduce pregnancy-specific distress for a healthy pregnancy and birth process. The pregnant women who are involved in childbirth education programs had a lower maternity anxiety level, higher rate of vaginal birth, and shortening of time of hospital stay of newborn babies (3,4,11).

It is the feeling of self-confidence and optimistic thinking that positively affects the quality of life and coping with stress of pregnant women (12). Improvement of knowledge levels and reduction of anxiety with childbirth programs increase the self-sufficiency and pleasure of pregnant women. In this context, expectant mothers should be supported and trained by health professionals to reduce anxiety and increase their knowledge level (4-6). These studies indicate that the knowledge of pregnant women about the birth process affects the anxiety levels and self-efficacy of expectant mothers and their decision in favour of vaginal delivery. Controlling the ways of obtaining information of pregnant women is important in terms of mother and child health. This study was carried out to reveal the knowledge level of pregnant women and the relationship between pregnancy-specific distress and knowledge level.

Main Points

- Pregnant women may be prone to experiencing pregnancy-specific distress associated with adverse pregnancy, maternal, and child outcomes.
- Encouraging pregnant women to receive adequate training on pregnancy and birth process and educational content should be well structured.
- Getting adequate spousal support during the prenatal period can reduce distress.

Material and Methods

Design

This is a descriptive study and was conducted to examine and compare the knowledge levels and distress status of pregnant women regarding pregnancy, birth, and postpartum.

Sample and Settings

The sample of the study consists of 178 pregnant women who applied to the maternity service of Lefkoşa Dr. Burhan Nalbantoğlu State Hospital in North Cyprus and agreed to participate in the study. The hospital where the study was conducted is the largest in the country and serves pregnant women from all groups. In this context, it represents the whole population. This research was conducted as a master thesis in a limited time (3 months). Therefore, it has a limited sample group.

Data were collected between 1 January and 1 April 2019 from participants who gave their verbal and written consents.

Data Collection

Three forms were used to collect information from pregnant women:

1. Socio-demographic and obstetric data form

2. Form that includes questions covering "knowledge questions about pregnancy, birth and postpartum (KQPBP)" (32 items)

3. The Tilburg pregnancy distress scale (TPDS).

Socio-demographic and Obstetric Data Form

This form consists of 11 questions; age, education level, occupation, number of pregnancies, number of live children, desire for this pregnancy, problems in a previous pregnancy

or childbirth, problems the current pregnancy, and week of pregnancy.

KQPBP: The questionnaire regarding pregnancy, delivery, and postpartum was prepared by a researcher based on the questions frequently asked by the pregnant women who applied to the policlinic and as a result of the literature review (13-18) and the suggestions of 3 experts in the field. The answers are "yes, no, and I don't know".

TPDS

TPDS was developed by Pop et al. (16) in 2011 in the Netherlands to define distress during pregnancy, the scale consists of 16 items and two sub-dimensions: "Negative affect" and "partner involvement". In the original scale, the cut-off point is determined as >17 for a total of the scale, >12 for the negative affect subscale, and >7 for the partner involvement subscale. If the score obtained is above the cut-off points, it indicates that the pregnant woman is at risk in terms of distress. It was stated that Cronbach's alpha coefficient of the original scale was 0.78; every subscale is 0.80 for construct validity, and it is valid and reliable.

In the Turkish form of TPDS, the cut-off point of total scores is 28 or higher, partner involvement subscale is 10 or higher, and negative affect subscale is 22 or higher (19).

In our study, the Cronbach's alpha value was found to be 0.756.

Statistical Analysis

P-value <0.05 was considered statistically significant. The distribution of pregnant women according to their socio-demographic characteristics, pregnancy history, and pregnancy-related characteristics, as well as the distribution of responses to TPDS items and knowledge questions, are shown by frequency analysis. Descriptive statistics, such as average, standard deviation, the median, minimum or maximum value related to total scores of pregnant women in TPDS and knowledge questions are given.

The compliance of the data with the normal distribution was examined with the Kolmogorov-Smirnov test. In the comparisons, the Mann-Whitney U test was applied if the variable consisted of two categories, and the Kruskal-Wallis test was applied if it consisted of three or more categories.

Ethical approach: This study was approved by the institutional review board of Lefkoşa Dr. Burhan Nalbantoğlu State Hospital (no: 039-18). Written informed consent was obtained from all subjects, who were assured that participation was voluntary and that all data collected were confidential.

Results

29% of 178 pregnant women participating in the study from the ages of 18-24, 40.2% from the ages of 25-31, and 30.7% belonged to the age group of 32 and older, 99% of pregnant women are primary school graduates, 29% are secondary school graduates, 27.9% are high school graduates, and 24% have a bachelor's degree. Also, 58.1% of them are housewives, 3.9% are public sector employees, 21.2% are workers, and 16.7% are doing other jobs.

Most of the pregnant women in the 3rd trimester stated that 32.9% of them wanted to have their first pregnancy. Some of them stated that they wanted the current pregnancy (95.5%). 55.8% did not have any problems in their previous pregnancy and 86.5% in their current pregnancy. Most women with problems experienced premature births and miscarriages (Table 1).

It was found that pregnant women, involved in the study, average partner involvement and negative affect, which are subscales of TPDS, and general scale scores are lower than sub-limits determined for distress definition (Table 2).

There is no significant difference in pregnant women's distress status according to the age group, educational level, occupation, or pregnancy time (although the pregnant women in I Trimester have lower general TPDS and subscale points than other pregnant women at other trimesters), pregnancy number, the status of wanting the current pregnancy, the status of having problems during previous pregnancy/birth, the status of having problems during the current pregnancy (p>0.05).

The average number of the right answers the pregnant women to KQPBP is 18.02±4.00 (3-26) and the median value is 18.

When the answers provided to the KQPBP questionnaire by the pregnant women are examined, it is found that:

• 97.7% of the pregnant women said "Yes" to the 23rd question, which was "Does breast milk protect the baby from any diseases?"

• 96.6% said "Yes" to the 2nd question, which was "Is it important for us to know our blood group during laboratory tests performed during pregnancy?"

• 94.9%, the highest percentage to give the right answer, said "No" to the 32nd question, which was "Could there be any sexual intercourse following vaginal bleeding afterbirth?"

• 7.2% of the pregnant women said "No" to the 8th question, which was "Can we start to do exercise from the third month of pregnancy?"

• 13.9% said "Yes" to the 10th question, which was "Is it possible to have dental treatment during pregnancy?"

• 17.3%, the least percentage of correct answers, said "No" to the 29th question, which was "Do you think the baby bath should be done by starting from the body, washing the head, and lastly the bottom?" (Table 3).

There is no correlation between pregnant women's age group and their total number of right answers to the knowledge questions (Table 4) (p>0.05). According to pregnant women's educational level and occupations, there is an important difference between the number of right answers to the knowledge questions (p=0.027). The total scores of secondary school graduate pregnant women in the knowledge questions were found to be significantly lower than those of primary school graduates, high school graduates, and university graduates. Moreover, the total

Table 1.
Pregnancy Stories and Features of Pregnant Women (n=178)

	Number (n)	**Percentage (%)**
Trimester		
I trimester	21	11.73
II trimester	64	35.75
III trimester	94	52.51
Average of pregnancy week	26.92±6.87 (min: 4 max: 41)	
Number of pregnancy		
First pregnancy	59	32.96
Second	60	33.52
Third	40	22.35
Fourth	20	11.17
Number of living children (n=120)		
One	60	50.00
Two	42	35.00
Three	14	11.67
Four	3	2.50
Is this pregnancy wanted?		
Yes	171	95.53
No	8	4.47
Problems during previous pregnancy/birth		
Yes	20	11.17
No	100	55.87
First pregnancy	59	32.96
Problems (n=20)		
Miscarriage	9	45.00
Risk of premature birth	4	20.00
Cardiac arrest in the baby	2	10.00
Breech birth	2	10.00
Other (late cervical dilatation, coagulation problem, syncopal conditions)	3	15.00
Problems during current pregnancy		
Yes	24	13.41
No	155	86.59
Problem (n=24)		
Risk of premature birth	9	37.50
Bleeding	4	16.67
Pain	3	12.50
Risk of miscarriage	2	8.33
Anaemia	2	8.33
Other (late cervical dilatation, embolus, hemorrhoid, asthma)	4	16.67

Table 2.
Total Scores of Pregnant Women in TPDS (n=178)

	n	$\bar{\chi}$	s	M	Min	Max
Parental involvement	178	4.66	3.09	5.00	0	15
Negative affect	178	8.96	5.69	8.00	0	27
Tilburg pregnancy distress scale (TPDS)	178	13.60	6.73	13.00	1	40

M=median, $\bar{\chi}$=mean

Table 3.
Answers of Pregnant Women to the KQPBP (n=178)

	Yes		No		I don't know	
	n	%	n	%	N	%
1. Should we go to the obstetric polyclinic every four weeks during a normal pregnancy until the last month of pregnancy? **(Y)**	**143**	**79.89**	9	5.03	27	15.08
2. Is it important to know our blood type in laboratory tests during pregnancy? **(Y)**	**173**	**96.65**	4	2.23	2	1.12
3. Can we consume pastry and dessert all we want? **(N)**	16	8.94	**146**	**81.56**	17	9.50
4. Can we consume dried fruits like hazelnut, walnut, peanut, and almond every day as a snack even if they are salty? **(N)**	103	57.54	**60**	**33.52**	16	8.94
5. Can we eat fruit before getting out he bed to prevent nausea and vomiting during the first months of pregnancy? **(N)**	59	32.96	**48**	**26.82**	72	40.22
6. Do exercises made during pregnancy make birth easy and comfortable by strengthening the uterus and abdominal muscles? **(Y)**	**131**	**73.18**	7	3.91	41	22.91
7. Do exercises made during pregnancy increase back pain based on posture disorder? **(N)**	52	29.05	**70**	**39.11**	57	31.84
8. Can we start to do exercises dating from the third month of pregnancy? **(N)**	89	49.72	**13**	**7.26**	77	43.02
9. Should we go on pregnancy exercising although there is a vanal bleeding during pregnancy? **(N)**	4	2.23	**131**	**73.18**	44	24.58
10. Is it possible to get dental treatment done while pregnant? **(Y)**	**25**	**13.97**	102	56.98	52	29.05
11. Can we prefer belted skirt or pants during pregnancy? **(N)**	6	3.35	**162**	**90.50**	11	6.15
12. Does sexual intercourse hurt the baby during a normal pregnancy process? **(N)**	21	11.73	**125**	**69.83**	33	18.44
13. Can we reduce the drinking of water so as not to urinate often while pregnant? **(N)**	5	2.79	**167**	**93.30**	7	3.91
14. Should a hospital bag be prepared two weeks before birth? **(N)**	105	58.66	**60**	**33.52**	14	7.82
15. Real contractions are regular. Their frequency, time, and intensity increase and do not go away when at rest. **(Y)**	**119**	**66.48**	17	9.50	43	24.02
16. Is water breaking a sign of the beginning of birth? **(Y)**	**162**	**90.50**	9	5.03	8	4.47
17. Do you think that changing positions frequently relaxes you during birth? **(Y)**	**62**	**34.64**	58	32.40	59	32.96
18. Will taking a warm shower help to relieve uterine contractions more easily? **(Y)**	**108**	**60.34**	11	6.15	60	33.52
19. Is it wrong to massage or make light pressure on the belly during birth contractions? **(N)**	24	13.41	**64**	**35.75**	91	50.84
20. Can we eat snacks or take light drinks during a normal birth process? **(Y)**	**51**	**28.49**	79	44.13	49	27.37

Table 3.
continued

	Yes		No		I don't know	
	n	**%**	**n**	**%**	**N**	**%**
21. Should we feed the baby one hour after the birth? **(N)**	50	27.93	**65**	**36.31**	63	35.20
22. Could sugared water be given to the baby before breastfeeding? **(N)**	11	6.15	**109**	**60.89**	59	32.96
23. Does human breast milk protect our baby from diseases? **(Y)**	**175**	**97.77**	1	0.56	3	1.68
24. Should breasts be washed with soapy water before every breastfeeding? **(N)**	61	34.08	77	**43.02**	41	22.91
25. If our baby sleeps more than 4 hours, should we wake him up to feed? **(Y)**	**136**	**75.98**	22	12.29	21	11.73
26. Should we relieve gas in our baby after every feeding? **(Y)**	**168**	**93.85**	8	4.47	3	1.68
27. Are contractions and stomach aches normally during postnatal breastfeeding? **(Y)**	**81**	**45.25**	20	11.17	78	43.58
28. Could an alcohol-based wet wipe be used while cleaning the baby's bottom? **(N)**	34	18.99	**134**	**74.86**	11	6.15
29. Should a baby's shower be done starting with his/her body, then his/her head, and finally his/her bottom? **(N)**	117	65.36	**31**	**17.32**	31	17.32
30. Can we change the baby's nappy over his/her umbilical cord that has not fallen off? **(N)**	25	13.97	**129**	**72.07**	25	13.97
31. Should we wipe our genital region and bottom from back to front after birth so as not to catch an infection? **(N)**	37	20.67	**101**	**56.42**	41	22.91
32. Could there be sexual intercourse while bleeding postnatal? **(N)**	2	1.12	**170**	**94.97**	7	3.91

Y=yes, N=no

Table 4.
Correlation Between TPDS Scores and KQPBP

		Parental involvement	**Negative affect**	**Tilburg pregnancy distress scale**	**Information**
Parental involvement	r	1.000			
	p	.			
Negative affect	r	0.037	1.000		
	p	0.626	.		
Tilburg pregnancy distress scale (TPDS)	r	0.483	0.872	1.000	
	p	**0.000***	**0.000***	.	
Information	r	-0.113	0.087	0.019	1.000
	p	0.133	0.250	0.804	.

**p<0.001, KQPBP=knowledge questions about pregnancy, birth and postpartum*

scores of pregnant women who graduated from university were found to be statistically significantly higher than those who were primary school and high school graduates (p≤0.01). Pregnant women who are government employees gave more correct answers to the knowledge questions than pregnant women who are housewives and the private sector at a significant level (p<0.05). It can be said that this result because that the employees in the government should be more educated.

Although pregnant women in the third trimester had more right answers to the knowledge questions, there is no significant difference between them and the other pregnant women (p>0.05).

When the total scores from knowledge questions of pregnant women according to the total number of pregnancies were received, those in their first pregnancy gave significantly less accurate answers than those in their second and third pregnancies, and the difference was statistically significant (p=0.012). There was no significant difference between wanting the pregnancy and the total scores of pregnant women from these questions (p>0.05).

While there is no statistically significant difference in the right answers to the questions between those who had problems during their previous pregnancy/birth and those who did not (p>0.05).

There is no significant correlation between the pregnant women's TPDS scores and whether they give the right answers to KQPBP (p>0.05) (Table 4).

Discussion

Approximately half of the 178 pregnant women who participated in the study, mostly between the ages of 25 and 31, are at the level of high school and above, most of them are housewives, most of them are in the first trimester and about 1/3 of them are in their first pregnancy. Most of the pregnant women stated that they want the current pregnancy, 55.8% of them did not have any problems with their previous pregnancy, and most of them do not have any problems with the current pregnancy. In the literature, the data indicates that anxiety specific to the pregnancy process is frequently observed and usually occurs in the third trimester, and causes include the profession of the woman, a history of abortion, the complications experienced in the previous pregnancy, the number of cigarettes consumed daily, the use of drugs, and the condition of the baby (20).

Cultural changes and low distress levels of pregnant women in our study may produce different results. The study carried out by Declava, Lubina, Cirkenis, Sudraba & Miller indicates that women who cannot get support from their partners or families are more likely to experience pregnancy-specific anxiety (21). In the answers given by the pregnant women to the TPDS items, it was observed that the TPDS general scale averages and sub-dimensions of the pregnant women were lower than the lower limit of the distress level obtained from the "partner involvement". According to the age group, educational status, and occupation of the pregnant women, there was no significant difference between TPDS and partner involment and negative affective subscales (p>0.05). In our study, most of the responses of pregnant women to the TPDS items, such as "I feel my partner's support", "Pregnancy made me and my partner become closer", "I and my partner enjoy this pregnancy process", and "I can really share my feelings and thoughts with my partner", were positive. The positive responses of the pregnant women to the items related to the "partner involvement" sub-dimension had a positive effect on the overall scale score.

Pregnant women have, on the average, 18 right answers to the 32 knowledge questions. That average makes us consider that pregnant women have a medium level of knowledge. Increasing knowledge levels is important in reducing the complications of birth and after birth as well as maternal fatality (22). Pre-information and preparation of expectant mothers for birth encourage them to benefit from health services, shorten the decision-making process, and ensure timely and professional care (23).

There is no relationship between the knowledge status of pregnant women about pregnancy, birth and postnatal, and distress status. There is no significant difference between the age group of pregnant women and total right answers to knowledge questions (p>0.05). There is a significant difference between the educational level and professions of pregnant women and the number of their right answers to knowledge questions (p>0.05). The total scores of pregnant women who are secondary school graduates are significantly low, and those of pregnant women with a bachelor's degree is significantly high. The competence of pregnant women plays a crucial role in understanding and deciding their health needs. The study by Akhtar et al. (24) found a relationship between the attitude toward knowledge acquisition and practices. The awareness of educated women is more qualified, and it is reported that 64.7% answered yes to a willingness to learn about prenatal care (24).

Pregnant women who are public sector employees answered the questions more correctly. It could be said that this result is related to the higher educational level of these women. It has also been reported that the self-esteem level of pregnant women has an impact on their ability to cope with stress. It is recommended to teach pregnant women techniques that increase self-esteem to reduce their stress levels (25).

When the status of responding to knowledge questions according to the trimesters of pregnant women is examined; although there are more pregnant women in the III trimester, there is no statistically significant difference (p>0.05). A prospective mother who is about to complete the pregnancy process is expected to have sufficient information on everything.

Those in their first pregnancy gave significantly fewer correct answers (p<0.05). A lack of information about pregnancy and birth care causes anxiety in nulliparous and affects the birth process. In their study, Madhavanprabhakarana et al. (4) showed that birth training is effective in preparing pregnant women for delivery, decreasing their fear and anxiety, and reducing demands for a caesarean section. Particularly, prospective mothers who would have a first birth experience would have a more comfortable pregnancy because their knowledge level and the relaxation techniques they can use at birth would resolve their pregnancy-specific concerns. It was reported that when the knowledge level of pregnant women increased, their anxiety decreased, and

their self-efficacy and satisfaction increased with the birth preparation program (4).

There is no significant difference between the pregnant women's status of wanting the current pregnancy and total scores in knowledge questions ($p>0.05$). This result can be interpreted to mean that willingness does not affect the process of informing after pregnancy occurs. While the difference between the numbers of correct answers given by those who had problems in a previous pregnancy/birth was significant ($p<0.05$), no difference was found among those who had problems in their current pregnancy.

Abdurashid et al. (26) showed in their study that only 24.1% of a total of 502 pregnant women have a good awareness of danger symptoms in pregnancy. In the study of Boekhorst et al. (27) with 1739 pregnant women, women with previous pregnancy-related complications reported more anxiety about pregnancy. In the same study, it was reported that pregnant women who had problems with birth had more concerns about childbirth than women who did not have problems (27). This result, the age of the mother, her educational status and the place where she last gave birth are all related to the problem or causes of death. Accordingly, it has been suggested to develop information, education, and communication among women, families and general society about the signs of danger in pregnancy. Pregnant women who have problems improve their attitudes toward getting more information.

Conclusion

In this study, the data indicate that there is no relationship between the knowledge level and distress of pregnant women. It can be thought that the pregnant women included in the study have moderate knowledge but low pregnancy distress level and do not experience distress about subjects they do not know. Therefore, it is recommended to determine the distress levels of pregnant women before participating in the training planned to increase their knowledge level. On the other hand, it can be said that the high perceptions of these pregnant women who are receiving support from their partners affect their results. Partner support should be encouraged for a comfortable pregnancy and delivery process. In line with the results of the research, it is recommended to encourage pregnant women to receive adequate training regarding pregnancy and delivery, structure the educational contents very well, and conduct studies with a large sample group to determine the characteristics affecting the levels of education and distress. Increasing the level of knowledge would be effective in reducing complications, increasing the quality of life/health of the mother, baby, and family, and decreasing frequent admissions to the hospital. By increasing their awareness about the danger signs in pregnancy, they can be provided with the necessary healthcare on time and the development of complications can be prevented. Educational content should be prepared by health professionals based on evidence-based practices, taking into account the differences in social status and education level. Since the knowledge level of expectant mothers with their first pregnancy is lower, they should be encouraged to attend planned training.

Acknowledgments
The TPDS has been translated and used in many languages. However, it was revised due to a critical evaluation of its psychometric properties and feedback from pregnant women. Gigase et al. (2022) revised TPDS-R-PI (4 items) and TPDS-R-NA (10 items: five items pregnancy and five items birth subcomponent) (28).

Ethics Committee Approval:

Informed Consent: All participants provided written informed consent before participation.

Peer-review: Externally peer-reviewed.

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References

1. De Carvalho Coutinho E, Bastos da Silva C, Balula Chaves CM, Nelas PABN, Parreira VBC, Amaral MO et al. Pregnancy and childbirth: what changes in the lifestyle of women who become mothers? Rev Esc Enferm USP 2014;48(2):17-24. [Crossref]
2. .Ayers S, Ford E. Birth trauma: widening our knowledge of postnatal mental health. European Health Psychologist 2009;11(2):16-19. [Crossref]
3. Zahra MS, Bita F, Khadige E, Ghodratollah R, Reyhaneh OS. The study of knowledge and attitude of pregnant women concerning physiologic delivery at Fatemiyeh Hospital Hamadan Iran. J Med Res 2014;3(5):62-67. [Crossref]
4. Madhavanprabhakarana GK, D'Souzab MS, Nairy KS. Prevalence of Pregnancy Anxiety and Associated Factors. IJANS 2015;3:1-7. [Crossref]
5. Roos A, Faure S, Lochner, C, Vythilingum, stein DJ. Vythilingum B, Stein DJ. Predictors of Distress and Anxiety During Pregnancy. Afr J Psychiatry 2013;16(2):118-122. [Crossref]
6. Staneva A, Morawska A, Bogossian F. Wittkowski A. Pregnancy-specific distress: the role of maternal sense of coherence and antenatal mothering orientations. J Ment Health 2016;25(5):387-394. [Crossref]
7. Kaloğlu Binici D, Köse Tuncer S. Investigation of Perceived Stress and Affecting Factors In Multipar And Primiparous Pregnancies. J Midwifery and Health Sci 2020;3(3):189-202. [Crossref]

8. Pirdal H, Yalçın BM, Ünal M. Knowledge levels of pregnants on their pregnancy and the related factors. Türk Aile Hek Derg 2016;20(1):7-15. [Crossref]
9. Öztürk GG, Bıdık NÜ, Uzunkaya EN. The Internet and Social Media Using Pregnant Women as a Source of Information. Journal of Adnan Menderes University Health Sciences Faculty 2020;4:210-220. [Crossref]
10. Batman D. Topics and Information Resources Researched For Pregnancy of Pregnant Women; A Qualitative Study. KOU Sag Bil Derg 2018;4(3):63-69. [Crossref]
11. Consonni EB, Calderon IMP, Consonni M, De Conti MHS, Prevedel TTS, Rudge MVC. A multidisciplinary program of preparation for childbirth and motherhood: maternal anxiety and perinatal outcomes. Reproductive Health 2010;7:1-6. [Crossref]
12. Dağlar G, Nur N, Bilgiç D, Özkan SA. The relationship between coping with stress styles and quality of life of pregnant women. Cukurova Med J 2019;44:953-996. [Crossref]
13. Coşkun A. Nobel Medicine, an instruction guide about women's health and diseases for nurses and midwives. Nobel Medicine Bookstore 2016. [Crossref]
14. NHS, The pregnancy book 2009. [Crossref]
15. Taşkın L. Obstetrical and women' health nursing. System Offset Printery Turkey/Istanbul; 2016. [Crossref]
16. Pop VJM, Pommer AM, Pop-Purceleanu MP, Wijnen H AA, Bergink V, Pouver F. Development of the Tilburg pregnancy distress scale: the TPDS, BMC Pregnancy and Childbirth 2011;11(1):1-8. [Crossref]
17. Lang C. (Translator Editors: Uzel N, Özbalcı S.) Connection, strengthen the connection before and after birth. Hipokrat Publication Inc., Turkey 2009. [Crossref]
18. Pishahang S, Hakimi S, Vatankhah S, Ghaffarifar S, Ranjbar F. Psychometric properties of the Tilburg Pregnancy Distress Scale-Persian version (TPDS-P) BMC Pregnancy and Childbirth 2021;21(2):1-10. [Crossref]
19. Çapık A, Pasinlioglu T. Validity and reliability study of the Tilburg Pregnancy Distress Scale into Turkish Journal of Psychiatric and Mental Health Nursing 2015;22(4):260-269. [Crossref]
20. Silva MMJ, Nogueira DA, Clapis MJ, Leite EPRC. Anxiety in pregnancy: prevalence and associated factors. Rev Esc Enferm USP 2017;51:e03253. [Crossref]
21. Deklava L, Lubina K, Circenis K, Sudraba V, Millere I. Causes of Anxiety During Pregnancy. Procedia Soc Behav Sci 2015;205:623-626. [Crossref]
22. Alshabanah R, Almohayya T, Alahmari EM. Assessment of knowledge, attitudes and practices of expectant mothers in relation to antenatal care in Abha. Egypti J Hosp Med 2018;70(6):939-942. [Crossref]
23. Suglo S, Siakwa M. Knowledge and practice on birth preparedness among expectant mothers seeking antenatal care at the Tamale Teaching Hospital, Ghana. Int J Res Med Sci 2016;8:1-11. [Crossref]
24. Akhtar S, Hussain M, Majeed I, Afzal M. Knowledge attitude and practice regarding antenatal care among pregnant women in a rural area of Lahore. IJSSM 2018;5(3):155-162. [Crossref]
25. Dolatian M, Mirabzadeh A, Forouzan AS, Sajjadi H, Majd HA, Moafi F, et al. (abstract) Correlation between self-esteem and perceived stress in pregnancy and ways to coping with stress. Pejouhandeh 2013;18(3):148-155. [Crossref]
26. Abdurashid N, Ishaq N, Ayele K, Ashenafi N. Level of awareness on danger signs during pregnancy and associated factors among pregnant mothers. Clinics in Mother and Child Health 2018;15(1):290. [Crossref]
27. Boekhorst MGBM, Beerthuizen A, Van Son M, Berkink V, Pop VJM. Psychometric aspects of Tilburg Pregnancy Distress Scale: data from the HAPPY study. Arch Womens Ment Health 2020;23:215-219. [Crossref]
28. Gigase FAJ, Hulsbosch LP, Caluwé ED, Pop VJM, Boekhorst MGBM. The Tilburg Pregnancy Distress Scale-Revised (TPDS-R): Psychometric aspects in a longitudinal cohort study. J Psychiatr Res 2022;156:511-519. [Crossref]

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ORIGINAL ARTICLE

Nurses' Perceptions Regarding Patient Handover and Affecting Factors

Hemşirelerin Hasta Teslimine Yönelik Algıları ve Etkileyen Faktörler

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Abstract

Objective: To determine nurses' perceptions on patient handover and the factors affecting it.

Method: This descriptive study was conducted in a training-research hospital between October and November 2022 with 182 nurses. Research data was collected using the "nurse information form" and "patient handover evaluation scale". Number, percentage, mean, independent groups t-test, ANOVA, Mann-Whitney U analyzes were used to evaluate the data.

Results: The total mean score of the patient handover evaluation scale of the nurses was 73.36±12.77, the mean score of the quality of information sub-dimension was 33.09±6.06, and the mean score of the interaction and support sub-dimension was 24.78±7.01, mean score of the productivity sub-dimension was 15.48±3.48. It was determined that there was a statistically significant difference between the total score and sub-dimension score averages of the patient handover evaluation scale according to gender, position, working willingly/willingly in the unit, receiving education on patient handover, and having problems with patient handover in the unit ($p<0.05$). The mean score of the patient handover evaluation scale of female nurses is higher than male, and the difference is statistically significant ($p<0.05$). The total mean score of the patient handover evaluation scale of the nurses who work happily, who are the nurses in charge, who receive training on patient handover and have no problems with the handover of the shift, is higher than the other nurses ($p<0.05$).

Conclusion: Total mean score of the patient handover evaluation scale of the nurses was high, and factors such as receiving education on patient handover, loving the unit, and the position worked were effective in evaluating patient handover.

Keywords: Nursing, patient handover, shift handover, communication, patient safety

Öz

Amaç: Bu araştırma hemşirelerin hasta teslimine yönelik algılarını ve etkileyen faktörlerin belirlenmesi amacıyla yapıldı.

Yöntem: Tanımlayıcı türde olan bu araştırmanın evrenini, Ekim-Kasım 2022 tarihleri arasında doğuda bir eğitim-araştırma hastanesinde görev yapmakta olan hemşireler oluşturdu. Araştırma örnekleme alınma kriterlerine uyan ve araştırmaya katılmaya gönüllü olan 182 hemşire ile yürütüldü. Araştırma verileri; "hemşire bilgi formu" ve "hasta teslim değerlendirme ölçeği" kullanılarak toplandı. Verilerin değerlendirilmesinde sayı, yüzde, ortalama, bağımsız gruplarda t-testi, ANOVA, Mann-Whitney U analizleri yapıldı.

Bulgular: Araştırma kapsamına alınan hemşirelerin hasta teslim değerlendirme ölçeği toplam puan ortalamasının 73,36±12,77 olduğu, bilginin kalitesi alt boyut puan ortalamasının 33,09±6,06, etkileşim ve destek alt boyut puan ortalamasının 24,78±7,01 olduğu, Verimlilik alt boyut puan ortalamasının ise 15,48±3,48 olduğu belirlendi. Araştırmada cinsiyet, çalışılan pozisyon, çalışılan birimde severek/isteyerek çalışmak, hasta teslimi konusunda eğitim alma durumu ve çalışılan birimde hasta teslimiyle ilgili sorun yaşama durumuna göre hasta teslim değerlendirme ölçeği toplam puan ve alt boyut puan ortalamaları arasında istatistiksel olarak anlamlı bir fark olduğu belirlenmiştir ($p<0,05$). Kadın hemşirelerin hasta teslim değerlendirme ölçeği toplam puan ortalamaları erkek hemşirelerden yüksek ve aradaki fark istatistiksel olarak anlamlıdır ($p<0,05$). Hemşirelerden çalıştığı birimde severek çalışan, sorumlu hemşire olan, hasta teslimi konusunda eğitim alan ve nöbet teslimi ile ilgili sorun yaşamayanların hasta teslim değerlendirme ölçeği toplam puan ortalamaları diğer hemşirelerden yüksektir ve aralarındaki fark istatistiksel olarak anlamlıdır ($p<0,05$).

Sonuç: Araştırma kapsamına alınan hemşirelerin hasta teslim değerlendirme ölçeği toplam puan ortalamasının yüksek olduğu, hasta teslimiyle ilgili eğitim alma, çalışılan birimi sevme, çalışılan pozisyon gibi faktörlerin hasta teslimini değerlendirme konusunda etkili olduğu sonucu elde edilmiştir.

Anahtar Kelimeler: Hemşirelik, hasta teslimi, nöbet teslimi, iletişim, hasta güvenliği

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Introduction

Patient handover is a dynamic process that directly affects patient care. Patient handover practices are recognized as an essential component of clinical care among healthcare professionals. It is predicted that patient's handover is important in ensuring continuity of care, and failing to do so can lead to significant safety issues for the patient (1-3). Because promoting high-quality ongoing care that can protect patients from the harmful risks associated with healthcare practices is an essential component of patient safety. Patient handover, which constitute a critical part of patient safety, among other risks, need to be comprehensively evaluated. Patient handover plays an important role in providing well-coordinated care (4).

Patient handover is considered an essential component of healthcare organizations because of its consequent impact on patient safety and clinical outcomes. These processes, above all, are effective in increasing patient safety capacity, patient-centered care approaches, increasing satisfaction for both patients and nurses, reducing miscommunication, errors and costs (5-7). Patient handover requires the efficient transfer of all necessary information. It needs good communication skills and time management. Ignoring communication can lead to the transmission of erroneous or incomplete data, resulting in delayed care or other adverse effects (8). When advanced communication skills are used in patient handover, possible errors in handover can be prevented.

Failure to understand a patient's condition, not being able to obtain up-to-date information about the patient, or not asking questions to clarify information at handover can put the patient at risk. Especially emergencies, inadequate care and treatment that is not done on time may be caused by nurses not sharing all clinical information about the patient in an accurate and timely manner. In many studies conducted with nurses, it has been stated that nurses who have up-to-date information ask more questions during patient handover, understand the patient care plan better during patient handover, increase the efficiency of nursing care, and need to focus more on communication-oriented tasks during patient handover (7,9,10). In another study, nurses thought that patient handover at the bedside was the most effective way of patient handover. It has been determined that the duration of handover and handover types differ according to clinics and there is no structured form for patient handover (11). Considering the results of the study examining the factors affecting patient handover; gender, knowledge, attitude, standard procedures, leadership, shift change, peers, previous experience, workload, work relationships, lack of active listening, lack of access to written information, lack of communication between nurses, lack of a structured form in which patient handover is recorded, necessary for the patient difficulty in recognizing information and inability to access relevant information are considered as negative factors (1,11-14). The continuity of information is vital for the safety of critically ill patients (15). Patient handover plays an important role in providing the necessary care in shaping and optimizing nursing care, which contributes to providing high-quality nursing care (16). Patient handover is accepted as an important part of nursing studies that can always convey the patient's information and ensure the continuity of the patient's treatment plan (17). Patient handover is of great importance in increasing the knowledge and awareness of nurses about patient handover. There is a need for research in our country on patient handover, which is an important issue for nurses. Therefore, this research was conducted to determine nurses' perceptions of patient handover and the factors affecting it.

Main Points

- Determining the factors affecting nurses' patient handover has an important place.
- This research provides evidence for situations that enable nurses to make patient handovers effective.
- Being a female nurse, receiving training on patient handover, working willingly in the unit, and being a nurse in charge are among the factors affecting patient handover.

Material and Methods

Type of research: It is a descriptive research.

Population and sample: The population of the research consisted of 501 nurses working in a training-research hospital in the east between October and November 2022. In the calculation of the sample; The formula $n=N.t^2.p.q / (N-1). d^2+t^2.p.q$ was used and the sample size was determined as 182.

Data collection tools: The "nurse information form" and "patient handover evaluation scale (PHES)" were used to collect data.

Nurse information form: It is a form that questions the socio-demographic characteristics of nurses (age, gender, education, marital status, professional experience).

PHES: O'Connell et al. (18) developed the scale. Taşkıran et al. (19) carried out the Turkish validity and reliability of the scale. The fourteen-item scale is seven-point Likert type (1=strongly disagree, 2=disagree, 3=somewhat disagree, 4=neither agree nor disagree, 5=partially agree, 6=agree, 7=strongly agree). Negatively expressed items (5^{th}, 12^{th} and 13^{th} items) are scored in the opposite direction. Thus, a minimum of 14 and a maximum of 98 points can be obtained from the scale. Higher scores reflect more positive perceptions. The scale consists of three sub-dimensions that question the quality of the information given on patient handover (6 questions), the interaction/support of the healthcare worker with the handover person (5 questions), and the efficiency of patient handover (3 questions). The Cronbach's alpha coefficient of the scale was calculated as

0.89 [Taşkıran et al. (19)]. In this study, the Cronbach's alpha was 0.75.

Data collection: After the necessary explanations were given to the nurses working in the institution between October and November 2022 in data collection, the data collection tools were distributed to the nurses by the researchers and asked to fill them in. The application time of the data collection tool lasted an average of 10-15 minutes.

Ethical statement: Written permission from the relevant hospital and ethics committee approval from Erzincan Binali Yıldırım University Human Research Ethics Committee were obtained (date: 25 February 2022, number: 02/05). The nurses constituting the research group were informed in writing and only volunteer nurses were included in the study. Since the research is of a descriptive type, does not include any initiatives and practices, and personal data is not collected and used, there is no potential danger or threat to the participants. The research was conducted in accordance with the principles of the Declaration of Helsinki.

Statistical Analysis

The obtained data were evaluated in the SPSS (version 26.0) statistical package program in computer environment. Number, percentage, mean, independent groups t-test, ANOVA, Mann-Whitney U analyzes were used to evaluate the data. P<0.05 was accepted as statistical significance value.

Results

The mean age of the nurses was 27.74±5.58, the average total working time was 5.22±5.98, and the average working time in their department was 2.49±3.26. 76.4% of the nurses were women, 63.2% were single, and 73.6% were at the undergraduate level of education.

It was found that 24.7% of the nurses worked in internal clinics, 38.5% in surgical clinics, and 36.8% in intensive care units. When the distribution of nurses according to their duties in the unit they work in was examined, it was determined that 92.3% of them worked as clinical nurses and 7.7% as nurses in charge.

It was found that 65.4% of the nurses work willingly in the unit they work, 74.2% receive training on patient handover, 81.9% do not have any problems with patient handover in the unit they work, and all of them think that patient handover is important (Table 1).

Total mean score of the nurses' PHES was 73.36±12.77. It was observed that nurses' quality of knowledge sub-dimension

Table 1.
Distribution of Nurses' Demographic Characteristics (n=182)

Demographic characteristics		**n**	**%**
Age (year) (min: 21, max: 45)	(Mean ± SD: 27.74±5.58)		
Gender	Female Male	139 43	76.4 23.6
Marital status	Married Single	67 115	36.8 6.,2
Educational status	High school Associate degree Licence Graduate	14 26 134 8	7.7 14.3 73.6 4.4
Total work time (year) **(min: 1, max: 25)**	(Mean ± SD: 5.22±5.98)		
Working time on this unit (year) **(min: 1, max: 17)**	(Mean ± SD: 2.49±3.26)		
Worked unit	Internal clinic Surgical clinic Intensive care	45 70 67	24.7 38.5 36.8
Position in the unit	Clinical nurse Clinical nurse in charge	168 14	92.3 7.7
Satisfaction with the working unit	Yes No Partially	119 15 48	65.4 8.2 26.4
Status of receiving education on patient handover	Yes No	135 47	74.2 25.8
The situation of having problems with patient handover in the unit where they work	Yes No	33 149	18.1 81.9

SD=standard deviation

score average was 33.09±6.06, interaction and support sub-dimension mean score was 24.78±7.01, and productivity sub-dimension mean score was 15.48±3.48 (Table 2).

There is no statistically significant relationship between the age, total working time and working time in the unit and the PHES and sub-dimension scores (p>0.05, Table 3).

The comparison of the PHES according to the introductory characteristics of the nurses is given in Table 4. It was seen that the difference between the PHES and its sub-dimensions mean scores according to the characteristics of the nurses participating in the study, such as education, marital status, and the unit they work in, was not statistically significant (p>0.05). It was found that there was a statistically significant difference between the mean score of the PHES according to the gender of the nurses (p=0.04), and the mean score of the PHES of the female nurses was higher than that of the male nurses. The difference between the mean scores of the PHES and the interaction and support sub-dimension according to the position of the nurses was found to be statistically significant (p<0.05). It was determined that the total score of the PHES and the interaction and support sub-dimension score averages of the nurses in charge were higher than the clinical nurses.

The difference between the mean scores of the PHES, interaction and support and quality of information sub-dimensions according to the satisfaction of the nurses in the unit they are in was found to be statistically significant (p<0.05). In the further analysis made to find out which group the difference originated from, it was seen that it was caused by those who were satisfied in their unit. Accordingly, it was determined that the mean scores of the PHES, interaction and support, and quality of information sub-dimensions of the nurses who were satisfied in their unit were higher than the other nurses, and the difference was statistically significant (Table 4).

The difference between the PHES and the interaction and support sub-dimension mean scores of the nurses participating in the study according to their training on patient handover was statistically significant. was found to be higher (Table 4).

Discussion

Providing quality care within the scope of the modernized health care system with the development of science and technology constitutes an important resource for recording nursing care and transferring patient data among nurses correctly. In this context, understanding the importance of patient handover for health care professionals and patients supports safe and quality care (20). Nurse handover is the nurse's explaining the care responsibilities of a patient to the nurse to whom the shift was handed at the end of the nurse's shift (21). In the hospital where the research was conducted, nurse shift handovers are carried out on average twice a day for each patient. When a nurse transfers the responsibility of care to another nurse, medical errors may result if all important medical information is not shared comprehensively and efficiently (21,22).

Table 2.
Nurses' Patient Handover Evaluation Scale Sub-dimensions and Total Mean Scores (n=182)

Scale	Mean ± SD	Min.	Max.
Quality of information sub-dimension	33.09±6.06	7	42
Interaction and support sub-dimension	24.78±7.01	5	69
Productivity sub-dimension	15.48±3.48	4	21
Patient handover evaluation scale (total score)	73.36±12.77	25	114

SD=standard deviation

Table 3.
Relationship Between Nurses' Age and Working Time with Patient Handover Evaluation Scale (n=182)

Variables	r/p	Quality of information sub-dimension	Interaction and support sub-dimension	Productivity sub-dimension	Patient handover evaluation scale (total score)
Age	r	-0.022	-0.045	0.031	-0.026
	p	0.772	0.551	0.677	0.725
Total work time (year) (min: 1, max: 25)	r	0.000	0.001	0.059	0.017
	p	0.995	0.985	0.427	0.823
Working time on this unit (year) (min: 1, max: 17)	r	0.052	0.033	0.123	0.076
	p	0.489	0.656	0.098	0.306

Table 4.
Comparison of Patient Handover Evaluation Scale Sub-dimensions and Total Scores According to Nurses' Descriptive Characteristics (n=182)

Variables		**n**	**%**	**Quality of information**	**Interaction and support**	**Productivity**	**Patient handover evaluation scale (total score)**
Gender	Female Male	139 43	76.4 23.6	33.61±5.00 31.41±8.52 t: 1.603/p=0.11	25.29±6.84 23.13±7.39 t: 1.771/p=0.078	15.71±3.54 14.76±3.21 t: 1.559/p=0.121	74.61±11.50 69.32±15.72 t: 2.044/p=0.04
Marital status	Married Single	67 115	36.8 63.2	33.65±5.87 32.76±6.18 t: 0.955/p=0.341	24.80±5.85 24.77±7.63 t: 0.030/p=0.976	15.85±3.84 15.27±3.25 t: 1.069/p=0.287	74.31±12.00 72.81±13.23 t: 0.761/p=0.448
Educational status	High school Associate degree Licence Graduate	14 26 134 8	7.7 14.3 73.6 4.4	31.64±7.08 33.53±3.73 33.29±6.45 30.87±2.64 F: 0.713/p=0.545	21.78±7.95 24.42±5.29 25.26±7.17 23.25±7.20 F: 1.213/p=0.306	15.14±2.59 15.92±3.66 15.53±3.54 13.87±3.39 F: 0.758/p:0.519	68.57±14.64 73.88±10.07 74.08±13.21 68.00±7.19 F: 1.291/p=0.279
Worked unit	Internal clinic Surgical clinic Intensive care	45 70 67	24.7 38.5 36.8	33.44±5.31 33.60±7.54 32.32±4.65 F: 0.850/p=0.429	26.51±8.58 24.50±6.39 23.92±6.34 F: 1.942/p=0.146	15.31±4.06 15.68±3.46 15.40±3.11 F: 0.189/p=0.828	75.26±12.65 73.78±14.66 71.65±10.51 F: 1.137/p=0.323
Position in the unit	Clinical nurse Clinical nurse in charge	168 14	92.3 7.7	32.85±6.09 36.00±5.118 U: 816.500/p=0.057	24.45±7.08 28.78±4.62 U: 719.000/p=0.016	15.50±3.43 15.28±4.14 U: 1166.500/ p=0.960	72.80±12.84 80.07±10.15 U: 782.000/p=0.037
Satisfaction with the working unit	Yes No Partially	119 15 48	65.4 8.2 26.4	34.51±5.02 30.73±4.36 30.31±7.61 **F: 10.406/p=0.000**	26.65±6.58 21.73±6.38 21.10±6.54 **F: 14.014/p=0.000**	15.83±3.35 13.86±3.92 15.14±3.56 F: 2.472/p=0.087	77.00±10.58 66.33±11.28 66.56±14.59 **F: 16.221/p=0.000**
Status of receiving education on patient handover	Yes No	135 47	74.2 25.8	33.65±6.17 31.48±5.50 t: 2.124/p=0.035	25.51±6.01 22.70±9.07 **t: 2.395/p=0.018**	15.78±3.49 14.63±3.33 t: 1.958/0.052	74.94±12.58 68.82±12.36 **t: 2.883/p=0.004**
The situation of having problems with patient handover in the unit where they work	Yes No	33 149	18.1 81.9	31.69±3.33 33.40±6.48 **t: -2.165/p=0.033**	21.66±5.66 25.47±7.11 **t: -2.879/p=0.004**	14.42±2.65 15.72±3.60 **t: -2.369/p=0.021**	67.78±7.91 74.60±13.32 **t: -2.825/p=0.005**

In our study, which was conducted to determine the perceptions of nurses about patient handover and the factors affecting it, the nurses' mean PHES score of 73.36±12.77 indicates that nurses perceive patient handover highly positively. Gungor et al. (23), in her study with emergency room nurses, it was found that the mean score of the handover assessment scale was 53.31; in the study of Tuna and Dallı (24), it was found that the efficiency of handover of the nurses is above the medium value; Chong et al. (25) found that nurses perceived shift handover practices as important. Studies show parallelism to this research finding and show that nurses care about patient handover.

In this study, it was found that the mean score of the PHES of female nurses was higher than that of male nurses. When the studies evaluating nurses' views on patient handover were examined, Çevik et al. (26) 87.2% of the nurses; Gungor et al.'s (23) research, 70.8%; Liu et al. (27), 77.4% in his research; In the study of Tuna and Dallı (24), 84.2% of them were female nurses. The fact that 76.4% of the nurses are female among our research findings shows similarities with the literature, as well as showing that female nurses have a higher PHES score than male nurses. In the study of Tuna and Dallı (24), it was found that the total score of the scale was higher for female nurses. This result shows that female nurses give more importance and care to the shift handover (24). At the same time, gender discrimination was abolished in the nursing profession in Turkey with the decree no. 663 dated 2/11/2011 (28). Since this situation is effective in the high rate of female nurses working in hospitals, it makes us think that it is necessary to conduct studies in which the number of male and female nurses is homogeneous in determining the perceptions of nurses about the shift handover.

It was determined that the total score of PHES and the Interaction and Support sub-dimension mean scores of the nurses in charge were higher than the clinical nurses. In the nursing profession, which is the whole of science and art, which deals with the healthy/sick individual with a humanistic perspective; human and patient rights, ethical norms, beliefs and values are of vital importance. Planning nursing care, removing unnecessary information, understanding people in a universal dimension are the equipment that makes nurses professional and competent (29).

Professionalism is a multidimensional concept that offers nurses the opportunity to develop individually and professionally. Professionalization for nursing is possible if it includes professionalization criteria. Being a graduate of undergraduate education and being based on professional scientific knowledge are among the criteria for nursing professionalization (30). Among the professionalization criteria, the education level of nurses is one of the main factors affecting the roles and responsibilities of nurses. Education level is one of the key criteria of professionalism (31). Nurses with undergraduate and graduate education have priority rights in nursing management duties (32). Nurses in charge in the hospital where the study was conducted are graduate or post-graduate. This information explained in the literature supports the finding in our study that the total score of PHES and interaction and support sub-dimension mean scores of the nurses in charge are higher than clinical nurses. The increase in professionalization shows that the negative situations experienced in shift handover will decrease and the quality of shift handover will increase. Dikmen et al. (33), in which they evaluated the professional attitudes of nurses, the professional attitude score averages of the nurses in charge were found to be higher. The high professional attitudes of the nurses in charge may be due to their educational status and the fact that they spend more time on individual development (33).

In this study, nurses who were satisfied in the unit they were in were found to have higher PHES total score, Interaction and support, and quality of information sub-dimension score averages. Although it is risky and time-consuming in clinical practice, it is an important process for nurses to convey information about the care and treatment of the patient in the shift handover (34). Nurses use methods such as written, oral, telephone and tape recording for the safe and effective transfer of the information in the patient's shift handover report (35,36). Giving incomplete information or not understanding the patient during shift handover may cause delay in the diagnosis and treatment of the patient. Therefore, accurate transfer of clinical information is necessary to ensure the continuity of nursing care and the safety of patients (21). The high number of nurses (65.4%) who are satisfied with the unit they work in in this study is thought to have an effect on this result. Leadership styles of nurse managers, which are among the factors affecting patient handover, have an effect on increasing nurses' job satisfaction and reducing turnover (37). Tambağ et al. (38) found that quality management, professional relations and job satisfaction were higher in nurses who were satisfied with the unit they worked in. In this context, it is thought that being satisfied with the unit is of great importance in ensuring that the quality of nursing care and job satisfaction of nurses do not decrease, accurate information is transferred during patient handover and adequate communication is ensured.

Forde et al. (34) observed that the shift handover, where there is nurse-patient interaction and important information is shared, mostly occurs at a fast pace, the nurse handovering the shift is more active, and the nurse handovering the shift affects the degree of participation of the patient. Developing a trusting relationship with a therapeutic interaction is one of the basic elements of care (39). Çevik et al. (26) found that 89.9% of the nurses had a disinterested attitude and attitude during handovering; it was stated that 85.4% of them were uncomfortable with handovering the shift with incomplete information and incomplete answers to the questions asked about the patient.

The research results and scientific knowledge explained above show that the professional professionalism of nurses

who love and are satisfied with their profession is better and this professionalism is positively reflected in care (40). In our study, the fact that the nurses who were satisfied in their unit had higher PHES total score, interaction and support and quality of knowledge sub-dimension score averages suggest that the fact that nurses love their profession will increase their job satisfaction, satisfaction level and motivation, and thus professionalization in the profession will be ensured. This information also shows that the nurses who participated in the study and who are satisfied with the unit they are in, have effective communication skills that play a key role in the shift handover, convey accurate and complete information about the patient, and are willing to increase their professional knowledge.

It was determined that nurses who received training on patient handover had higher mean scores for the PHES and interaction and support sub-dimension than those who did not receive training. While providing the care service in which the nurses perform their professional role and function, it is necessary to express the views and opinions of the healthy/sick individual, colleagues, other health team members, scientific written documents of the patient with correct and understandable words, that is, they should have effective communication skills (39,41). Communication skills are learned behaviors that can convey feelings and thoughts to the other person, listen effectively, provide consistency between verbal and non-verbal messages, and facilitate the individual's life in society, based on respect, trust and empathy (39,42).

The fact that nurses do not have effective communication skills, clinically relevant information is not shared accurately and in a timely manner during shift handover, appropriate treatment and care is not provided, nurses and patients have low satisfaction levels, increase costs, lengthen hospital stays, and more readmissions (21,35,43). Providing the patient's current care plan and clinical information accurately and completely is of great importance for the continuity and safety of care (44). Standardization is an important criterion for effective patient handover. The most effective solution to the problems experienced in shift handover is to plan training programs to increase the knowledge level of nurses about patient handover (36). The finding in our study that nurses who received training on patient handover had higher mean scores on the interaction and support sub-dimension with PHES than those who did not receive training, is in parallel with the positive effect of education on their perceptions of patient handover. When the literature is examined, Çevik et al. (26), while the rate of nurses who received training on the patient handover process was 88.3%, in our study, it was determined that 74.2% of the nurses received training on patient handover. A safe patient handover is possible with effective verbal and written communication skills, adequate training and knowledge about patient handover (36). Olasoji et al. (45) with mental health nurses found that there were significant effects on shift handover after the training given.

Clinician nurses who perform the shift handover offer the indispensable professional roles and functions of the nursing discipline, the science and art of nursing, and the specialized knowledge acquired by training to the service of the individual. On-call handover is among the roles and responsibilities of the clinician nurse. On-call handover is an important building block of the individualized nursing care process. Because the individualized care process reflects the philosophy of nursing based on the uniqueness, worthiness, integrity and sanctity of life (10,29,46).

Conclusion

Effective communication in shift handover is thought to have a clinically significant positive effect on patient outcomes. As a result of this research, nurses who received training on patient handover, being a woman, being a nurse in charge, loving their profession had higher perceptions of patient handover. In addition, it was determined that nurses' perception of patient handover was high.

Ethics Committee Approval: Written permission from the relevant hospital and ethics committee approval from Erzincan Binali Yıldırım University Human Research Ethics Committee were obtained (date: 25 February 2022, number: 02/05).

Informed Consent: The nurses constituting the research group were informed in writing and only volunteer nurses were included in the study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – P.K., S.K., Ş.K.B.; Design – P.K., S.K., Ş.K.B.; Data Collection and/or Processing – S.K., Ş.K.B.; Analysis and/or Interpretation – P.K., S.K., Ş.K.B.; Literature Review – P.K., S.K., Ş.K.B.; Writing – P.K., S.K., Ş.K.B.

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References

1. Suryani L, Said FBM. Empowering the Implementation of Patient Handover with Increasing Nurse Knowledge and Attitude at X General Hospital Indonesia. Malaysian Journal of Medicine and Health Sciences (eISSN 2636-9346). Mal J Med Health Sci 2020;20(30):31-40. [Crossref]
2. Australian Commission on Safety and Quality in Health Care [ACSQHC]. Safety and Quality Improvement Guide Standard 6: Clinical Handover. ACSQHC, Sydney, NSW. 2012. [Crossref]
3. Anderson J, Malone L, Shanahan K, Manning J. Nursing bedside clinical handover - an integrated review of issues and tools. J Clin Nurs 2015;24(5-6):662-671. [Crossref]
4. Wang B, Zou G, Zheng M, Chen C, Teng W, Lu Q. Correlation between the quality of nursing handover, job satisfaction,

and group cohesion among psychiatric nurses. BMC Nursing 2022;21(1):86. [Crossref]

5. Tobiano G, Marshall AP, Gardiner T, Jenkinson K, Shapiro M, Ireland M. Development and psychometric testing of the patient participation in bedside handover survey. Health Expect 2022;25(5):2492-2502. [Crossref]
6. Bressan V, Cadorin L, Stevanin S, Palese A. Patients experiences of bedside handover: findings from a meta-synthesis. Scand J Caring Sci 2019;33(3):556-568. [Crossref]
7. Sharp L, Dahlén C, Bergenmar M. Observations of nursing staff compliance to a checklist for person-centred handovers - a quality improvement project. Scand J Caring Sci 2019;33(4):892-901. [Crossref]
8. Alsolamy S, Al-Sabhan A, Alassim N, Sadat M, Qasim EA, Tamim H, et al. Management and outcomes of patients presenting with sepsis and septic shock to the emergency department during nursing handover: a retrospective cohort study. BMC Emerg Med 2018;18(1):3. [Crossref]
9. Luo Z, Liu S, Li Y, Zhong S. Under the chest pain center mechanism, whether the nursing handover affects the nursing efficiency and the outcomes of patients with STEMI in the emergency department? A retrospective study. BMC Emerg Med 2023;23(1):3. [Crossref]
10. Pun J. Factors associated with nurses' perceptions, their communication skills and the quality of clinical handover in the Hong Kong context. BMC Nursing 2021;20(1):1-8. [Crossref]
11. Tuğrul E, Şahbaz M. Hemşirelerin Hasta Teslimi İle İlgili Uygulamaları ve Görüşleri. Adnan Menderes Üniversitesi Sağlık Bilimleri Fakültesi Dergisi 2021;5(1):13-25. [Crossref]
12. Khan A, Ali S, Bhatti J, Hayat N. Ineffective Transition of Patients During Shift Handover Process of Nurses in Private Sector Tertiary Care Hospital of Peshawar, Pakistan. Pak Armed Forces Med J 2022;72(2):572-575. [Crossref]
13. Bost N, Crilly J, Patterson E, Chaboyer W. Clinical handover of patients arriving by ambulance to a hospital emergency department: a qualitative study. Int Emerg Nurs 2012;20(3):133-141. [Crossref]
14. Baillie L, Thomas N. Changing from 12-hr to 8-hr day shifts: A qualitative exploration of effects on organising nursing care and staffing. J Clin Nurs 2019;28(1-2):148-158. [Crossref]
15. Wanigasinghe N. Audit on effective handover of critically ill patients in intensive care units between shifts by the medical and nursing officers. Sri Lankan Journal of Anaesthesiology 2016;24(2):76-81. [Crossref]
16. Chiappinotto S, Papastavrou E, Efstathiou G, Andreou P, Stemmer R, Ströhm C, et al. Antecedents of unfinished nursing care: a systematic review of the literature. BMC Nursing 2022;21(1):137. [Crossref]
17. Anderson J, Malone L, Shanahan K, Manning J. Nursing bedside clinical handover - an integrated review of issues and tools. J Clin Nurs 2015;24(5-6):662-671. [Crossref]
18. O'Connell B, Ockerby C, Hawkins M. Construct validity and reliability of the Handover Evaluation Scale. J Clin Nurs 2014;23(3-4):560-570. [Crossref]
19. Taşkıran N, Erdem H, Sarı D. Hasta teslim değerlendirme ölçeği'nin Türkçe versiyonunun psikometrik özelliklerinin incelenmesi: Metodolojik çalışma. Turkiye Klinikleri J Nurs Sci 2021;13(4):879-887. [Crossref]
20. Tuğrul E, Khorshıd L. Hemşirelerin Önemli İşlevlerinden Biri: Hasta Teslimi. Ege Üniversitesi Hemşirelik Fakültesi Dergisi 2015;31(1):95-107. [Crossref]
21. Smeulers M, Lucas C, Vermeulen H. Effectiveness of different nursing handover styles for ensuring continuity of information in hospitalised patients. Cochrane Database Syst Rev 2014;2014(6):CD009979. [Crossref]
22. Li P, Stelfox HT, Ghali WA. A prospective observational study of physician handoff for intensive-care-unit-to-ward patient transfers. Am J Med 2011;124(9):860-867. [Crossref]
23. Gungor S, Akcoban S, Tosun B. Evaluation of emergency service nurses' patient handover and affecting factors: A descriptive study. Int Emerg Nurs 2022;61:101154. [Crossref]
24. Tuna R, Dallı B. Hemşirelerin Nöbet Devir Teslim Etkinliği ve İlişkili Değişkenler. Acıbadem Üniversitesi Sağlık Bilimleri Dergisi 2018;4:432-437. [Crossref]
25. Chong DWQ, Iqbal AR, Kaur Jaj B, Zainab A, Nordin A, Abd Majid ND, et al. Perceptions of nurses on inter-shift handover: A descriptive study in Hospital Kuala Lumpur, Malaysia. Med J Malaysia 2020;75(6):691-697. [Crossref]
26. Çevik B, Sultan K, Uğurlu Z, Doğan N, Karakurt Ç, Erdoğan B. Hemşirelerin Hasta Teslimine İlişkin Görüşleri. Türk Hemşireler Derneği Dergisi 2020;1(1):39-52. [Crossref]
27. Liu Y, Teng W, Chen C, Zou G. Correlation of safety behavior, handover quality, and risk perception: A cross-sectional study among Chinese psychiatric nurses. Front Psychiatry 2022;13:1043553. [Crossref]
28. Sağlık Bakanlığı Ve Bağlı Kuruluşlarının Teşkilat Ve Görevleri Hakkında Kanun Hükmünde Kararname. [Crossref]
29. Babadağ K. Hemşirelik ve Değerler, Ankara, 2010, Alter Yayınları. [Crossref]
30. Ünlüsoy Dinçer N. Hemşirelikte Profesyonelleşme. Temel Hemşirelik Esaslar, Kavramlar, İlkeler, Uygulamalar Kitabı. Ed.: Kara Kaşıkçı M., Akın E. İstanbul Tıp Kitabevleri,. 2021; 1.Baskı. s:24. [Crossref]
31. Öztunç G. Hemşireliğin Doğası Hemşirelik Esasları Hemşirelik Bilim ve Sanatı Kitabı. Ed.: Atabek Aştı T, Karadağ A. Akademi Basın ve Yayıncılık; 2012;25-33. [Crossref]
32. https://www.mevzuat.gov.tr/anasayfa/MevzuatFihristDetayIframe?MevzuatTur=1&MevzuatNo=6283&MevzuatTertip=3#:~:text=Madde%205%20%E2%80%93%20Hem%C5%9Fire%20okulundan%20mezun,en%20b%C3%BCy%C3%BCk%20sa%C4%9Fl%C4%B1k%20amirine%20verirler. [Crossref]
33. Dikmen Y, Yönder M, Yorgun S, Usta YY, Sema UM, Aytekin A. Hemşirelerin profesyonel tutumlari ile bunu etkileyen faktörlerin incelenmesi. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi 2014;17(3):158-164. [Crossref]
34. Forde MF, Coffey A, Hegarty J. Bedside handover at the change of nursing shift: A mixed-methods study. J Clin Nurs 2020;29(19-20):3731-3742. [Crossref]
35. Raeisi A, Rarani MA, Soltani F. Challenges of patient handover process in healthcare services: A systematic review. J Educ Health Promot 2019;8:173. [Crossref]
36. Tobiano G, Bucknall T, Sladdin I, Whitty JA, Chaboyer W. Patient participation in nursing bedside handover: A systematic mixed-methods review. Int J Nurs Stud 2018;77:243-258. [Crossref]
37. Suliman M, Aljezawi M, Almansi S, Musa A, Alazam M, Ta'an WF. Effect of nurse managers' leadership styles on predicted nurse turnover. Nurs Manag (Harrow) 2020;27(5):20-25. [Crossref]
38. Tambağ H, Kahraman Y, Şahpolat M, Can R. Hemşirelerin çalışma ortamlarının iş doyumu üzerine etkisi. Bakırköy Tıp Dergisi 2015;11(4):143-149. [Crossref]
39. Yalçın N, Aştı T. Hemşire-hasta etkileşimi. İstanbul Üniversitesi Florence Nightingale Hemşirelik Yüksekokulu Dergisi 2011;19(1):54-59. [Crossref]
40. Tarhan G, Kılıç D, Yıldız E. Hemşirelerin mesleğe yönelik tutumları ile mesleki profesyonellikleri arasındaki ilişkinin incelenmesi. Gülhane Tip Dergisi 2016;58(4):411-416. [Crossref]
41. Duruk N. Hemşirelik İşlevleri ve Rolleri. Temel Hemşirelik Esaslar, Kavramlar, İlkeler, Uygulamalar Kitabı. Ed. Kara Kaşıkçı M, Akın E. İstanbul Tıp Kitabevleri 2021;11-15. [Crossref]

42. Baltacı ÖH. İletişim becerileri ve empatik eğilim arasındaki ilişkinin x ve y kuşaklarına göre farklılıklarının incelenmesi ve bir uygulama. Thesis, Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul: 2016. [Crossref]
43. Patterson ES, Wears RL. Patient handoffs: standardized and reliable measurement tools remain elusive. Jt Comm J Qual Patient Saf 2010;36(2):52-61. [Crossref]
44. Kerr D, Lu S, McKinlay L, Fuller C. Examination of current handover practice: evidence to support changing the ritual. Int J Nurs Pract 2011;17(4):342-350. [Crossref]
45. Olasoji M, Cross W, Reed F, Wang W, Jacob S, Plummer V. Mental health nurses' attitudes towards consumer involvement in nursing handover pre and post an educational implementation. Int J Ment Health Nurs 2019;28(5):1195-1205. [Crossref]
46. Ahn JW, Jang HY, Son YJ. Critical care nurses' communication challenges during handovers: A systematic review and qualitative meta-synthesis. J Nurs Manag 2021;29(4):623-634. [Crossref]

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ORIGINAL ARTICLE

Determining the Relationship Between the Frequency of Urinary Incontinence, Depression, Anxiety and Stress in Menopausal Women

Menopoz Dönemdeki Kadınlarda Üriner İnkontinans Sıklığı ile Depresyon, Anksiyete, Stres Arasındaki İlişkinin Belirlenmesi

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Abstract

Objective: Though urinary incontinence (UI) is not a life-threatening health problem, it may have significant physical and psychological effects on women's social and family life. Most women delay seeking help since they are embarrassed or do not consider UI a health problem, causing a gradual increase in the symptoms of UI. This study aims to determine the relationship between the frequency of UI, depression, anxiety, stress and quality of life in menopause women.

Method: The sample of this descriptive study comprised 112 participants from Northern Cyprus between October and December 2022. Personal information form, urogenital distress inventory (UDI-6), incontinence impact questionnaire (IIQ-7) and depression, anxiety, stress scale-21 (DASS-21) were used for data collection. The non-parametric Mann-Whitney U test was used for two-group comparison. Spearman's correlation coefficient was used to determine the relationship between two continuous variables. Number, percentage, mean and standard deviation were used as descriptive statistics. Statistical significance was set at $p<0.05$.

Results: The mean scores obtained by the participants with UI from all scales and their subscales were significantly higher than the participants without UI ($p<0.05$). There was a positive, moderate and statistically significant relationship between the UDI-6, IIQ-7 and the depression, anxiety and stress subscales of DASS-21 ($r=0.634$, $p<0.001$; $r=0.449$, $p<0.001$; $r=0.609$, $p<0.001$; $r=0.449$, $p<0.001$, $r=0.492$ $p<0.001$, respectively). In addition, it was also found a positive, moderate and statistically significant relationship between the IIQ-7 and the depression, anxiety and stress subscales of DASS-21 ($r=0.517$, $p<0.001$; $r=0.591$, $p<0.001$; $r=0.619$, $p<0.001$, respectively).

Conclusion: This study found that a higher frequency of UI in menopausal women reduced the quality of life and increased the levels of depression, anxiety and stress.

Keywords: Urinary incontinence, menopause, depression, anxiety, stress

Öz

Amaç: Üriner inkontinans (UI) kadın yaşamını tehdit etmemesine rağmen kişinin aile içi ve sosyal yaşantısını fiziksel ve psikolojik yönden önemli derecede etkileyebilmektedir. Kadınların çoğu utandığı ya da üriner inkontinansı sorun olarak görmediği için sağlık hizmetlerine başvurmakta gecikmektedirler. Bu gecikme UI semptomlarının giderek artmasına neden olmaktadır. Bu çalışmada menopoz dönemdeki kadınlarda UI sıklığı ile depresyon, anksiyete, stres arasındaki ilişkinin belirlenmesi amaçlanmıştır.

Yöntem: Bu tanımlayıcı tipteki araştırmanın örneklemini 05/10/2022 ve 30/12/2022 tarihleri arasında Kuzey Kıbrıs Türk Cumhuriyet'inden toplam 112 katılımcı oluşturmuştur. Araştırmanın verileri araştırmacılar tarafından hazırlanan "kişisel bilgi formu", "ürogenital disstres envanteri (UDI-6), inkontinans etki sorgulaması (IIQ-7) ve depresyon anksiyete stres ölçeği-21 (DASS-21) olmak üzere dört bölümden oluşan online anket ile toplanmıştır. Elde edilen veriler; non-parametrik testlerden, iki grup karşılaştırması için Mann-Whitney U testi kullanılarak yapılmıştır. İki sürekli değişken arasındaki ilişkiyi belirlemek için ise Spearman korelasyon katsayısı kullanılmıştır. Tanımlayıcı istatistiklerden sayı, yüzde, ortalama ve standart değerleri verilmiştir. Testlerin anlamlılık düzeyi için $p<0,05$ değeri kabul edilmiştir.

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Bulgular: Çalışmamızda üriner inkontinansı olan kadınların tüm ölçeklerden ve alt boyutlarından aldıkları puanların üriner inkontinansı olmayan kadınlara göre istatistiksel olarak daha yüksek olduğu bulunmuştur (tüm p değerleri <0,05). Çalışmamızda UDI-6 ile IIQ-7, DASS-21 depresyon, anksiyete ve stres alt boyutları arasında pozitif yönde, orta düzeyde ileri düzeyde bir ilişki vardır (sırasıyla r=0,634, p<0,001; r=0,449, p<0,001; r=0,609, p<0,001; r=0,449, p<0,001, r=0,492 p<0,001). Buna ek olarak IIQ-7 ile DASS-21 depresyon, anksiyete ve stres alt boyutları arasında pozitif yönde, orta düzeyde ileri düzeyde bir ilişki bulunmuştur (sırasıyla r=0,517, p<0,001; r=0,591, p<0,001; r=0,619, p<0,001).

Sonuç: Çalışmamızda menopoz döneminde bulunan kadınların UI sorununun artmasıyla yaşam kalitelerinin düştüğü ve depresyon, anksiyete, stres yaşama oranlarının arttığı saptanmıştır.

Anahtar Kelimeler: Üriner inkontinans, menopoz, depresyon, anksiyete, stres

Introduction

Menopause, which may be defined as the final menstural period in biological and medical terms, is a universal event for all middle-aged women (1). This important life stage, which marks the end of the natural reproductive cycle in women, occurs around 51 years of age (2,3). The basic mechanism causing menopause depends on a decrease in estrogen and an increase in follicle stimulating hormone levels (1,4). Accounting to nearly one-third of women's life, menopause is the longest stage of life, during which women experience physical, psychological and social changes (1,5,6). Estrogen hormone deficiency during menopause result with changes in various systems, causing a number of health problems. During this period, pelvic floor muscles may lose their elasticity due to ageing and decreasing levels of estrogen, which in turn, may result in urinary incontinence (UI) and prolapse (7). UI may be defined as the unintentional leakage of urine. Although it may be observed in patients of all age groups, numerous studies have shown that the prevalence of UI increases with age (8). Having a significant effect on morbidity and the quality of life, UI affects the emotional well-being, social functions and general health of menopausal women and may cause depression, low self-esteem, anxiety and stress (8-10). Existing studies have reported that nearly half of the women experiencing UI are worried that the symptoms will worsen in the near future, feel embarrassed about urinary leakage and experience anxiety about the odds associated with the leakage (11). Although UI is not life-threatening, it may significantly affect a woman's family and social life in physical and psychological terms. Most women are reluctant to seek medical help since they feel ashamed or do not consider UI as a significant problem, which in turn, results with a gradual increase in the symptoms of UI (12). Delayed treatment of UI will increase the economic burden of medical care. Therefore, UI problem should be diagnosed earlier and should be evaluated carefully (13,14). Within this context, this study aims to determine the relationship between the frequency of UI, depression, anxiety and stress in menopausal women.

Main Points

- The quality of life of women without urinary incontinence is higher than women with urinary incontinence.
- Women with urinary incontinence have higher depression, anxiety and stress levels than women without.
- As women's quality of life related to urinary incontinence decreases, their depression, anxiety and stress levels increase.

Objectives

This descriptive study was conducted to determine the relationship between the frequency of UI and depression, anxiety and stress in menopausal women living in Norther Cyprus. Research questions included the followings:

1. What is the frequency of UI in menopausal women?
2. What is the level of depression in menopausal women?
3. What is the level of anxiety in menopausal women?
4. What is the level of stress in menopausal women?
5. What is the quality of life in menopausal women?
6. Is there a relationship between UI frequency, depression, anxiety and stress in menopausal women?

Material and Methods

Population and Sampling

Menopausal women living in Northern Cyprus constituted the population. Since it was not possible for the researchers to identify the participants in the digital environment, convenience sampling was used as a non-random sampling method. Using an online survey, the researchers reached 112 participants between 05.10.2022 and 30.12.2022. Voluntary participants aged 40-60 years, who could read and write in Turkish and experienced menopause in the last 12 months, were included to the study.

Data Collection Procedures

After obtaining ethical permission, online survey was sent to women via social media. The introduction of the survey provided information about the aim of the study and included a consent form. Confidentiality of participants was maintained. The survey was completed in approximately 10 minutes.

Data Collection Tools

The online survey was composed of four parts, namely, personal information form, urogenital distress inventory (UDI-6), incontinence impact questionnaire (IIQ-7) and depression, anxiety, stress scale-21 (DASS-21).

Personal Information Form
The form was prepared by the researchers in line with the literature and consisted of 14 questions on descriptive characteristics, such as age, education level, type of birth and the type and duration of menopause (14-16).

UDI-6
UDI-6 was developed by Shumaker et al. (1994) to measure the effects of UI on women's quality of life. The original scale, which consisted of 30 questions, was transformed into a short form with six questions by Uebersax et al. (1995) and adapted into Turkish by Çam et al. (2004)(17-19). The UDI-6 measured stress on three subscales, namely, irritative, stress and obstructive/discomfort or voiding difficulty symptoms. Items were scored on a 4-point Likert scale, ranging from 0 (not at all) to 3 (greatly). Possible scores, which ranged from 0 to 18, were converted into percentages, with higher scores indicating a lower quality of life. Cronbach's alpha of the Turkish version of the inventory was 0.74 (17). Cronbach's alpha in our study was 0.78.

IIQ-7
IIQ-7 was also developed by Shumaker et al. (1994) to measure the effects of UI on women's quality of life. The original 19-item questionnaire was shortened to seven questions by Uebersax et al. (1995) and adapted into Turkish by Çam et al. (2004) (17-19). The IIQ-7 had four subscales, namely, physical activity, travel, social relations and emotional health. Items were scored on a four-point Likert scale, ranging from 0 (not at all) to 3 (greatly). Possible scores ranged from 0 to 21 and converted into percentages, with higher scores indicating lower quality of life (17). Cronbach's alpha of the Turkish version of the inventory was 0.87. Cronbach's alpha in our study was 0.91.

DASS-21
The original scale, which was first developed by Lovibond and Lovibond (1995), included 42 items and later was shortened to 21 items (20). Adapted into Turkish by Sarıçam (21), DASS-21 had three subscales, namely depression, anxiety and stress. Items were scored on a 4-point Likert scale, ranging from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time). Subscales were evaluated separately and higher scores obtained from each subscale indicated higher levels of depression, anxiety or stress. Test-retest correlation coefficients of depression, anxiety and stress subscales in the Turkish version of the scale were 0.68, 0.66 and 0.61, respectively (21). Test-retest correlation coefficients of depression, anxiety and stress subscales in our study were 0.70, 0.76 and 0.82, respectively.

Statistical Analysis
SPPS version 25.0 was used to analyze the data. Normality and homogeneity of variables were assessed by Shapiro-Wilk and Levene tests. The non-parametric Mann-Whitney U test was used for two-group comparison. Spearman's correlation coefficient was used to determine the relationship between two continuous variables. Number, percentage, mean and standard deviation were used as descriptive statistics. Statistical significance was set at $p<0.05$.

Ethical Considerations
Ethical approval was obtained from Scientific Research and Publication Ethics Boards of East Mediterranean University (no: ETK00-2022-0042, dated: 12.01.2022).

Results

Table 1 presented the descriptive characteristics of the participants. Accordingly, 50.9% were aged 51-55 years, 83% were married, 37.5% were graduates of primary school, 67% had an income equal to expenses, 53.6% did not have any chronic disease, and 76.8% did not smoke. The number of gravidity and parity were two or less for 50.9% and 58.9% of the participants, respectively. Additionally, 79.5% experienced normal menopause, duration of menopause was maximum 12 months for 26.8% of the participants, 70.5% never received hormone therapy and 82.1% did not receive prior education on menopause. Finally, 25.9% had normal weight and 38.3% experienced UI.

Table 2 presented the mean scores obtained from the UDI-6, IIQ7 and DASS-21. The mean scores obtained from UDI-6 and its subscales of irritative, stress and obstructive/discomfort symptoms were 29.61±20.37, 43.15±25.46, 26.19±27.28, and 26.19±27.28, respectively. The mean scores obtained from the IIQ-7 and its physical activity, travel, social relations and emotional health subscales were 22.58±25.05, 20.24±27.23, 21.13±29.69, 19.94±29.16, and 28.13±32.81, respectively. Finally, the mean scores obtained from the depression, anxiety and stress subscales of DASS-21 were 4.76±2.95, 4.79±3.04, and 4.32±3.02, respectively.

Table 3 presented the scores obtained by the participants with and without UI from the UDI-6, IIQ7 and DASS-21. Accordingly, the mean scores obtained by the participants with UI from all scales and their subscales were statistically significantly higher than the participants without UI ($p<0.05$).

Finally, Table 4 presented the relationship between the mean UDI-6, IIQ7 and DASS-21 scores. Accordingly, there was a positive, moderate and statistically significant relationship between the UDI-6, IIQ-7 and the depression, anxiety and stress subscales of DASS 21 ($r=0.634$, $p<0.001$; $r=0.449$, $p<0.001$; $r=0.609$, $p<0.001$; $r=0.449$, $p<0.001$, $r=0.492$ $p<0.001$, respectively). We also observed a positive, moderate and statistically significant relationship between the IIQ-7 and the depression, anxiety and stress subscales of DASS 21 ($r=0.517$, $p<0.001$; $r=0.591$, $p<0.001$; $r=0.619$, $p<0.001$, respectively). The findings indicated that the levels of depression, anxiety and stress increased in menopause women as their UI-related quality of life decreased.

Table 1. ***Descriptive Characteristics (n=112)***		
Variables	**n**	**%**
Age (in years) (Mean= 52.22±4.68)		
40-45	13	11.6
46-50	18	16.1
51-55	57	50.9
56-60	24	21.4
Marital status		
Married	93	83
Single	19	17
Education		
Primary school	42	37.5
Secondary school	19	17
High school	29	25.9
University and above	22	19.6
Income level		
Less than expenses	4	3.6
Equal to expenses	75	67
More than expenses	33	29.5
Chronic diseases		
Yes	52	46.4
No	60	53.6
Smoking		
Yes	26	23.2
No	86	76.8
Gravidity (Mean= 2.82±1.34)		
0-2	57	50.9
≥2	55	40.1
Parity (Mean= 2.38±0.95)		
0-2	66	58.9
≥2	46	41.1
Type of birth		
Normal	58	51.8
C/S	54	48.2
Type of menopause		
Natural	89	79.5
Surgical	23	20.5
Duration of menopause (in years) (Mean= 2.10±0.80)		
<1	30	26.8
1-5	41	36.6
6-10	41	36.6
Hormone therapy		
Used to receive	29	25.9
Never received	79	70.5
Currently receives	4	3.6
Table 1. ***continued***		
Variables	**n**	**%**
Education on menopause		
Yes	20	17.9
No	92	82.1
BMI (Mean= 28.29±4.80)		
Normal weight (18.5-24.9)	29	25.9
Overweight (25-29.9)	46	41.1
Class I obesity (30-34.9)	21	18.8
Class II obesity (35-39.9)	16	14.3
Presence of UI		
Yes	49	54.8
No	63	56.2
BMI=body mass index, UI=urinary incontinence		

Table 2. ***Mean Scores Obtained from UDI-6, IIQ-7 and DASS-21 (n=112)***		
	$\overline{X}$ ± SS	**Min-max**
UDI-6 total	29.61±20.37	0-94.44
Irritative symptoms	43.15±25.46	0-100
Stress symptoms	26.19±27.28	0-100
Obstructive/discomfort symptoms	26.19±27.28	0-100
IIQ-7 total	22.58±25.05	0-100
Physical activity	20.24±27.23	0-100
Travel	21.13±29.69	0-100
Social relations	19.94±29.16	0-100
Emotional health	28.13±32.81	0-100
DASS-21		
Depression	4.76±2.95	0-15
Anxiety	4.79±3.04	0-18
Stress	4.32±3.02	0-18
DASS-21=depression, anxiety, stress scale-2, UDI-6=urogenital distress inventory, IIQ-7=incontinence impact questionnaire		

Discussion

Urinary incontinence has serious medical, physical, social, psychological and economic impact on women. Although it increases with age, UI may be observed in not only elderly but also in the young and middle-aged population. The incidence of UI increases with the effect of decreasing estrogen hormone during menopause. Within this context, this study aimed to determine the relationship between the frequency of UI, depression, anxiety and stress, The findings were discussed in light of the literature on the relationship between the UDI-6, IIQ-7 and DASS-21 scores.

Table 3.
Comparison of UDI-6, IIQ-7 and DASS-21 Scores Obtained by the Participants with and without Urinary Incontinence (n=112)

	With UI (n=49)		**Without UI (n=63)**		**Statistical analysis**
	$\bar{X}$ ± SS	**Median [IQR]**	**$\bar{X}$ ± SS**	**Median [IQR]**	
UDI-6 total	42.38±23.23	38.89 [38.89]	21.66±13.31	22.22 [22.22]	Z=-4.506 **p<0.001**
Irritative	53.10±26.04	33.33 [33.33]	36.96±23.20	33.33 [33.33]	Z=-3.030 **p<0.001**
Stress	41.09±30.50	33.33 [50.00]	16.91±20.31	16.67 [33.33]	Z=-4.162 **p<0.001**
Obstructive/discomfort	32.95±26.10	33.33 [33.33]	11.11±13.61	0 [16.67]	Z=-4.695 **p<0.001**
IIQ-7 total	42.64±26.39	42.86 [42.86]	10.08±13.46	4.76 [14.29]	Z=-6.229 p<0.001
Physical activity	44.44±29.20	44.44 [44.44]	5.15±9.05	0 [11.11]	Z=-4.733 **p<0.001**
Travel	41.09±33.99	33.33 [66.67]	8.70±17.76	0 [66.67]	Z=-5.511 **p<0.001**
Social relations	39.53±32.74	33.33 [66.67]	7.73±22.90	0 [0]	Z=-5.729 **p<0.001**
Emotional health	42.25±37.15	33.33 [66.67]	19.32±26.45	0 [33.33]	Z=-3.263 **p=0.001**
DASS-21					
Depression	5.58±3.15	6 [4]	4.26±2.85	4 [5]	Z=-2.354 **p=0.019**
Anxiety	5.65±3.18	6 [4]	3.41±2.54	3 [4]	Z=-2.000 **p=0.045**
Stress	5.28±3.32	6 [4]	3.72±2.67	4 [4.50]	Z=-2.586 **p=0.010**

Z=Mann-Whitney U test, significant at the level of p<0.05, DASS-21=depression, anxiety, stress scale-2, UDI-6=urogenital distress inventory, IIQ-7=incontinence impact questionnaire, UI=urinary incontinence, IQR=interquartile range

The analysis of the studies on Turkish women showed that the prevalence of UI ranged from 40.6% to 51.6% (21-23). In our case, UI was observed in 54.8% of the participants. The review of the literature reveals a number of studies supporting our finding. Karan et al. (24) observed UI in 50% of menopause and 21% of non-menopause women. Kocaöz and Eroğlu (25), on the other hand, found that 60.6% of menopause and 38.6% of non-menopause women experienced UI. Both studies reported that menopause increased the prevalence of UI. The study of Altintas al. (26) found that only 18.5% of the women complained about UI. Another study conducted in South Korea reported that 59% of the women with UI complained about the problem, 79.7% shared their problem with their friends but only 23.2% consulted a health professional (27). Zhu et al. (28) found that 25% of the Chinese women with UI consulted a physician. These findings imply that women do not consider UI as a serious problem but as a normal consequence of aging since the problem is not a life-threatening one (29).

The mean UDI-6 score of the participants was 29.61±20.37. The most common type of incontinence was irritative symptoms (43.15±25.46), and the stress and obstructive/discomfort symptoms were equally common (26.19±27.28). Yücel et al. (30) found that the prevalence of UI frequency was 28.2%. Another study reported mixed incontinence in 52.5% of women, stress incontinence in 27.5% and urge incontinence in 20% of women (31). This difference may be due to the fact that the studies were conducted in different regions with different age groups.

As a common problem affecting the psychological, physical, social and economic welfare of women, UI has a negative impact on the quality of life as the problems leads to restrictions in social life and daily activities, psychological morbidity and changes in sexual functions (15,16). Higher scores obtained from the IIQ-7 indicate deterioration of the quality of life. In our case, the mean IIQ-7 score was 22.58±25.0, indicating moderate quality of life. Emotional health (28.13±32.81), travel (21.13±29.69), physical activity

Table 4.
Relationship Between the Mean UDI-6, IIQ-7 and DASS-21 Scores (n=112)

		UDI-6 total	Irritative	Stress	Obstructive	IIQ-7 total	Physical activity	Travel	Social relations	Emotional health	DASS- 21 depression	DASS-21 anxiety	DASS-21 stress
UDI-6 total	**r**	1.000	0.818	0.874	0.648	0.634	0.637	0.553	0.515	0.478	0.449	0.609	0.492
	p		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Irritative	**r**	0.818	1.000	0.619	0.260	0.479	0.528	0.507	0.386	0.273	0.279	0.471	0.269
	p	**<0.001**		**<0.001**	**0.006**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.004**	**0.003**	**<0.001**	**0.004**
Stress	**r**	0.874	0.619	1.000	0.475	0.454	0.477	0.433	0.373	0.309	0.266	0.409	0.352
	p	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.001**	**0.005**	**<0.001**	**<0.001**
Obstructive	**r**	0.648	0.260	0.475	1.000	0.629	0.568	0.458	0.544	0.595	0.474	0.470	0.558
	p	**<0.001**	**0.006**	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
IIQ-7 total	**r**	0.634	0.479	0.454	0.629	1.000	0.891	0.729	0.816	0.812	0.517	0.591	0.619
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Physical activity	**r**	0.637	0.528	0.477	0.568	0.891	1.000	0.632	0.736	0.602	0.444	0.502	0.475
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Travel	**r**	0.553	0.507	0.433	0.458	0.729	0.632	1.000	0.755	0.398	0.225	0.313	0.396
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**0.017**	**0.001**	**<0.001**
Social relations	**r**	0.515	0.386	0.373	0.544	0.816	0.736	0.755	1.000	0.565	0.375	0.424	0.465
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**<0.001**	**<0.001**
Emotional health	**r**	0.478	0.273	0.309	0.595	0.812	0.602	0.398	0.565	1.000	0.635	0.628	0.682
	p	**<0.001**	**0.004**	**0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	**<0.001**
DASS- 21 Depression	**r**	0.449	0.279	0.266	0.474	0.517	0.444	0.225	0.375	0.635	1.000	0.790	0.791
	p	**<0.001**	**0.003**	**0.005**	**<0.001**	**<0.001**	**<0.001**	**0.017**	**<0.001**	**<0.001**		**<0.001**	**<0.001**
DASS- 21 Anxiety	**r**	0.609	0.471	0.409	0.470	0.591	0.502	0.313	0.424	0.628	0.790	1.000	0.738
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.001**	**<0.001**	**<0.001**	**<0.001**		**<0.001**
DASS- 21 Stress	**r**	0.492	0.269	0.352	0.558	0.619	0.475	0.396	0.465	0.682	0.791	0.738	1.000
	p	**<0.001**	**0.004**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	

r Spearman's correlation coefficient; significant at the level of p<0.05, UDI=urogenital distress inventory, IIQ-7=incontinence impact questionnaire, DASS-21=depression, anxiety, stress scale-21

(20.24±27.23) and social relations (19.94±29.16) were the problematic dimensions, respectively. Demir and Beji (32) found that women with UI faced difficulties in performing activities, such as traveling for more than 30 minutes (36.6%), doing minor housework (30.5%), participating in recreational activities (36.3%) and participating in social activities outside the home (38.4%).

The mean scores obtained by the participants from the depression, anxiety and stress subscales of DASS-21 were 4.76±2.95, 4.79±3.04, and 4.32±3.0, respectively. This finding indicated that the participants experienced depression, anxiety and stress at the same rates. Existing studies reported that urinary incontinence increases the psychological problems experienced by women (33,34). A meta-analysis that analyzed 20 randomized controlled trials reported that women with UI experienced higher levels of depression and anxiety than those without UI (35).

Existing studies reported that women with UI, which is a physically and psychologically devastating problem, have lower level of self-confidence, higher level of anxiety and are prone to social isolation (36). Supporting the literature, this study found that UDI-6, IIQ7 and DASS-21 scores of the participants with UI were significantly higher than the participants without UI ($p<0.05$).

We found a positive and moderate correlation between the UDI-6, IIQ-7 and the depression, anxiety and stress subscales of DASS-21 ($r=0.634$, $p<0.001$; $r=0.449$, $p<0.001$; $r=0.609$, $p<0.001$; $r=0.449$, $p<0.001$, $r=0.492$ $p<0.001$, respectively). This finding implies that experiencing UI reduced the quality of life and increased the levels of depression, anxiety and stress in menopausal women. Existing studies report that UI has serious negative effects on women's physical, social, professional and educational life. Parallel to our findings, various studies reported that UI negatively affects the quality of life in women (37-39). Increase in the frequency of UI and decrease in the quality of life may result with problems, such as stigmatization, social isolation and embarrassment, which, in turn, may increase the levels of depression, anxiety.

UI has significant impact on women's mental health and quality of life. It is not a natural part of ageing that should be tolerated (34). Therefore, studies to increase awareness on this hidden endemic in society, whose exact prevalence is known, may be conducted.

Study Limitations

The results of this research will contribute to the literature; however, there are some limitations. Although online data collection is advantageous in terms of the fast and broad participation of the volunteers, collecting data from individuals who have a certain education level, who have online access, and who can use the digital environment, can be seen as a limitation of the study. Therefore, the results do not fully represent every segment of society.

Conclusion

This study found that a higher frequency of UI in menopausal women reduced the quality of life and increased the levels of depression, anxiety and stress. UI is a common health problem in the society, which increases even more during menopause. Due to this reason, further attention should be paid on this important community health problem. Within this context, nurses may conduct training programs to raise the awareness of menopause women on UI. Further prevalence studies are required to reveal the importance of the problem. Therefore, studies to increase awareness on this hidden endemic in society, whose exact prevalence is known, may be conducted. In addition, providing training and consultancy services regarding the necessary practices for strengthening the pelvic floor muscles in the premenopausal period may reduce the incidence of urinary incontinence in the menopausal period.

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References

1. Bekmezci E, Altuntuğ K. Examination of evidence based practices for symptoms associated with menopause. Journal of General Health Sciences (JGEHES) 2020;2(3):167-174. [Crossref]
2. Daley A, Lampard, HS, Thomas A, Macarthur C. Exercise for vasomotor menopausal symptoms. Cochrane Database Syst Rev 2014;28;2014(11):CD006108. [Crossref]
3. Kagan R, Spadt SK, Parish SJ. Practical treatment considerations in the management of genitourinary syndrome of menopause. Drugs Aging 2019;36(10):897-908. [Crossref]
4. Santoro N, Epperson CN, Mathews SB. Menopausal Symptoms and Their Management. Endocrinol Metab Clin North Am 2015;44(3):497-515. [Crossref]
5. Ulusoy MN, Kukulu K. Relationship between menopause and sleep problems. Gümüşhane University Journal of Health Sciences. 2013;2(2):206-213. [Crossref]

6. Duran, AD, Sinan, Ö. Determination of sexual dysfunctions and depression situations in women suffering from natural and surgical menopause. Kocaeli University Journal of Health Sciences 2020;6(2):150-156. [Crossref]
7. Subramaniam J, Eswara S, Yesudhason B. Association of urinary tract ınfection in married women presenting with urinary ıncontinence in a hospital based population. Journal of Clinical and Diagnostic Research 2016;10(3):DC10-DC13. [Crossref]
8. Stickley A, Santini Zİ, Koyanağı A. Urinary incontinence, mental health and loneliness among community-dwelling older adults in Ireland. BMC Urology 2017;17:29. [Crossref]
9. Townsend MK, Minassian VA, Okereke OI, Resnick NM, Grodstein F. Urinary incontinence and prevalence of high depressive symptoms in older black versus white women. Int Urogynecol J 2014;25(6):823-829. [Crossref]
10. Kim KJ, Shin J, Choi J, Park JM, Park HK, Lee J, et al. Association of Geriatric Syndromes with Urinary Incontinence according to Sex and Urinary-Incontinence-Related Quality of Life in Older Inpatients: A Cross-Sectional Study of an Acute Care Hospital. Korean J Fam Med 2019;40(4):235-240. [Crossref]
11. Lee H, Rhee Y, Choi KS. Urinary incontinence and the association with depression, stress, and self-esteem in older Korean Women. Scientific Reports 2021;11:9054. [Crossref]
12. Öztaş S. Üriner İnkontinans. İçinde: Çakmak BD, editör. Jinekolojide Pratik Bilgiler. Lyon: Livre de Lyon; 2020. s. 221-238. [Crossref]
13. Pérez-López FR, Cuadros JL, Fernández-Alonso AM, Chedraui P, Sánchez-Borrego R, Monterrosa-Castro A. Urinary incontinence, related factors and menopause-related quality of life in mid-aged women assessed with the Cervantes Scale. Maturitas 2012;73(4):369-372. [Crossref]
14. Özer NE, Dinç A. Premenopoz ve menopozal dönemdeki kadınlarda üriner inkontinans görülme sıklığı ve risk faktörlerinin incelenmesi. Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi 2019;8(2):1-9. [Crossref]
15. Öztürk GZ, Toprak D, Basa E. The frequency and the affecting factors of urinary incontinence in women over 35 years old. The Medical Bulletin of Şişli Etfal Hospital 2012;46(4):170-176. [Crossref]
16. Demirci N, Aba YA, Süzer F, Karadağ F, Ataman H. Urinary Incontinance and Its Effects on Life Quality For Women Over 18. Fırat Journal of Health Services 2012;7(19):23-37. [Crossref]
17. Shumaker SA,Wyman JF, Uebersax JS, McClish D, Fantl JA. Health-related QOL mea-sures for women with urinary incontinence: The incontinence impactquestionnaire and urogenital distress inventory. Qual Life Res 1994;3(5):291-306. [Crossref]
18. Uebersax JS, Wyman JF, Shumaker SA, McClish DK, Fantl JA. Short forms to assess life quality and symptom distress for urinary incontinence in women: The incontinence impact questionnaire and urogenital distress inventory.Neurourol Urodyn 1995;14(2):131-139. [Crossref]
19. Cam C, Sakalli M, Ay P, Cam M, Karateke A. Validation of the short forms of the incontinence impact questionnaire (IIQ-7) and the urogenital distress inventory (UDI-6) in a Turkish population. Neurourol Urodyn 2007;26(1):129-133. [Crossref]
20. Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour Research and Therapy 1995;33(3):335-343. [Crossref]
21. Sarıçam H. The psychometric properties of Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples. Journal of CognitiveBehavioral Psychotherapy and Research 2018;7(1):19-30. [Crossref]
22. Kaşıkçı M, Kılıç D, Avşar G, Şirin M. Prevalence of urinary incontinence in older Turkish women, risk factors, and effect on activities of daily living. Arch Gerontol Geriatr 2015;61(2):217-223. [Crossref]
23. Silay K, Akinci S, Ulas A, Yalcin A, Silay YS, Akinci MB, et al. Occult urinary incontinence in elderly women and its association with geriatric condition. Eur Rev Med Pharmacol Sci 2016;20(3):447-451. [Crossref]
24. Karan A, Aksaç B, Ayyıldız H, Işıkoğlu M, Yalçın O, Eskiyurt N. Ouality of life and ıts relation with objective assessment parameters inn urinary incontinent patients. Geriatri 2000;3(3):102-106. [Crossref]
25. Kocaöz S, Eroğlu K. Prevalence of stress urinary incontinence in women and determination of factors affecting ıt. Nursing Research Journal 2002;4(1):29-39. [Crossref]
26. Altintas R, Beytur A, Oguz F, Tasdemir C, Kati B, Cimen S, et al. Assessment of urinary incontinence in the women in eastern Turkey. Int Urogynecol J 2013;24(11):1977-1982. [Crossref]
27. Wang C, Wan X, Wang K, Li J, Sun T, Guan X. Disease stigma and intentions to seek care for stress urinary incontinence among community-dwelling women. Maturitas 2014;77(4):351-355. [Crossref]
28. Zhu L, Lang J, Liu C, Han S, Huang J, Li X. The epidemiological study of women with urinary incontinence and risk factors for stress urinary incontinence in China. Menopause 2009;16(4):831-836. [Crossref]
29. Milsom I, Gyhagen M. The prevalence of urinary incontinence, Climacteric 2019;22(3):217-222. [Crossref]
30. Yücel U, Hadımlı A, Koçak YÇ, Ekşioğlu AB, Sarı D, Saydam BK. Urinary Incontinence Prevelance and Risk Factors in Women at the Age of 20 and Over Living in Bornova. Journal of Health Sciences and Professions 2018;5(3):414-423. [Crossref]
31. Karaca ŞB, Demir AN. The effects of urinary incontinence on quality of life and emotional state and exercise awareness in female patients. Journal of Ankara Training and Research Hospital. 2019;52(2):133-137. [Crossref]
32. Demir S, Beji NK. Quality of life and health seeking behaviors of women with urinary ıncontinence. F N Nursing Journal 2015;23(1):23-31. [Crossref]
33. Fouad RA, Hafez SA. Impact of urinary incontinence on self-esteem and quality of life of elderly females residing in assisted living facilities. Alexandria Scientific Nursing Journal 2017;19(1):91-108. [Crossref]
34. Shaw C, Rajabali S, Tannenbaum C, Wagg A. Is the belief that urinary incontinence is normal for ageing related to older Canadian women's experience of urinary incontinence? Int Urogynecol J 2019;30(12):2157-2160. [Crossref]
35. Cheng S, Lin D, Hu T, Cao L, Liao H, Mou X, et al. Association of urinary incontinence and depression or anxiety: a meta-analysis. J Int Med Res 2020;48(6):300060520931348. [Crossref]
36. Kadıoğlu M, Kızılkaya Beji N. Current Approach to the Application of Lifestyle on the Urinary Incontinence Treatment. HSP 2016;3(3):201-207. [Crossref].
37. Ceyhan Ö, Göriş S, Zincir H. An important problem affecting sleep in elderly individuals: Incontinence. Journal of Health Sciences 2018;27(1):29-35. [Crossref]
38. Amaral MO, Coutinho EC, Nelas PA, Chaves CM, Duarte JC. Risk factors associated with urinary incontinence in Portugal and the quality of life of affected women. Int J Gynaecol Obstet 2015;131(1):82-86. [Crossref]
39. Kwak Y, Kwon H, Kim Y. Health-related quality of life and mental health in older women with urinary incontinence. Aging Ment Health 2016;20(7):719-726. [Crossref]

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ORIGINAL ARTICLE

Sexual and Reproductive Health in Nursing Undergraduate Program Curriculums in Turkey: A Cross-sectional Study

Türkiye'de Hemşirelik Lisans Programı Müfredatlarında Cinsel Sağlık ve Üreme Sağlığı: Kesitsel Bir Araştırma

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Abstract

Objective: Nursing students must learn to provide holistic care, including sexual and reproductive health (SRH), during their education to provide adequate and quality care to healthy/patient individuals. This study aimed to examine the characteristics of SHR courses in nursing undergraduate program curricula in Turkey.

Method: The descriptive and cross-sectional study's population consisted of 154 undergraduate nursing programs affiliated to state and private universities in Turkey. The sample consisted of 95 undergraduate nursing programs with SRH courses in their curriculum. The data were collected by screening the course contents from the web pages of undergraduate nursing programs.

Results: In Turkey, 61.69% of 154 universities with undergraduate nursing programs have SRH courses. SRH courses are offered under different names in undergraduate nursing programs; 94.6% are elective and primarily offered in the fourth (24.1%) and fifth (24.1%) semesters. The evaluation methods for all courses included a final exam, and most learning methods were homework/self-study (60%). 93.5% of the courses had two national credits, 36.6% had three European Credit Transfer System credits, and 94.7% had two theoretical hours. In the study, there are 27 topics grouped under the titles of "sexual health", "reproductive health", and "SRH" in the SRH course content, most of which are of medium prevalence.

Conclusion: SRH courses are not sufficiently included in Turkey's undergraduate nursing programs curriculum. The SRH courses should be integrated into undergraduate nursing programs, and standardization should be ensured in the course content throughout the country.

Keywords: Curriculum, nursing education, reproductive health, sexual health, Turkey

Öz

Amaç: Hemşirelik öğrencilerinin sağlıklı/hasta bireylere yeterli ve kaliteli bakım verebilmeleri için eğitimleri sırasında cinsel sağlık ve üreme sağlığını da (CSÜS) içeren bütüncül bakım vermeyi öğrenmeleri gerekmektedir. Bu çalışmada Türkiye'de hemşirelik lisans programlarında yer alan CSÜS derslerinin özelliklerinin incelenmesi amaçlanmıştır.

Yöntem: Tanımlayıcı ve kesitsel tipteki araştırmanın evrenini Türkiye'deki devlet ve vakıf üniversitelerine bağlı 154 hemşirelik lisans programı oluşturmuştur. Örneklemini ise müfredatında CSÜS dersi bulunan 95 lisans hemşirelik programı oluşturmuştur. Veriler, hemşirelik lisans programlarının web sayfalarından ders içeriklerinin taranması ile toplanmıştır.

Bulgular: Türkiye'de hemşirelik lisans programı olan 154 üniversitenin %61,69'unda CSÜS dersi bulunmaktadır. Hemşirelik lisans programlarında CSÜS derslerinin farklı isimlerde yürütüldüğü, %94,6'sının seçmeli ders olarak ve çoğunlukla 4. (%24,1) ve 5. (%24,1) yarıyılda müfredatta yer aldığı saptanmıştır. Derslerin tamamının değerlendirme yönteminin final, çoğunluğunun öğrenme yöntemi ödev/bireysel çalışma (%60) olarak belirlenmiştir. Dersin %93,5'inin ulusal kredisi 2, %36,6'sının Avrupa Kredi Transfer Sistemi kredisi 3 ve %94,7'sinin teorik ders saati 2'dir. Araştırmada CSÜS ders içeriğinde yer alan, "cinsel sağlık", "üreme sağlığı ve "CSÜS" başlıkları altında gruplandırılan ve çoğunluğunun orta düzey yaygınlığa sahip 27 konu belirlenmiştir.

Sonuç: CSÜS dersleri Türkiye'de hemşirelik lisans programları müfredatında yeterince yer almamaktadır. CSÜS dersleri hemşirelik lisans programlarına entegre edilmeli ve ders içeriklerinde ülke genelinde standardizasyon sağlanmalıdır.

Anahtar Kelimeler: Müfredat, hemşirelik eğitimi, üreme sağlığı, cinsel sağlık, Türkiye

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Introduction

Sexuality is an intrinsic part of the human experience and influences our actions, thoughts, and day-to-day lives (1-3). While sexual health is defined as "positive enrichment and strengthening of personality, communication, and love by considering sexual life as a whole in terms of physical, spiritual, mental and social aspects" (4); reproductive health is defined as "not only the absence of disease but also a state of complete physical, mental and social well-being and the ability to use one's sexuality without health risk" (5). About 50 years ago, the World Health Organization (WHO) recognized sexuality as an essential and integral aspect of human development and maturation throughout the life cycle, emphasized the necessity of integrating the subject of sexual health into the undergraduate education of health professionals and the importance of graduating by gaining competence in sexual health (6).

Nurses are uniquely positioned to meet the sexual and reproductive health (SRH) needs of individuals at all stages of life (childhood, adolescence, adulthood, and old age) (1,7-9). For this reason, nursing students should learn to provide holistic care, including SRH), throughout their education (1,7,8). However, in the literature, many research results state that nurses are not prepared enough to counsel healthy/sick individuals about sexuality (8,10-12). Blakey and Aveyard (2) highlighted that nurses graduate with a lack of knowledge that limits their ability to provide counseling, including the biological, psychological, and social aspects of sexuality. In a study conducted in Taiwan, stated that there is a need for an effective curriculum to increase student nurses' ability and willingness to assess their patients' sexual health (12). In the literature, the lack of focus on sexuality in the undergraduate nursing program curriculum is the main reason that nurses do not address sexuality with the healthy/sick individuals they care for (2,3,10-12). Despite WHO's strong recommendation nearly 50 years ago (6), it shows that universities did not design curricula to provide this critical knowledge.

The literature has limited research on the content of SRH subjects taught in undergraduate nursing programs (8,9,13-15). It is known that the curricula of some nursing programs do not include sexuality and sexual health at all or that critical areas of human sexuality (for example, vulnerable groups such as lesbian, gay, bisexual, transgender, intersex communities, disabled people, the elderly, immigrants) are ignored in curricula that focus only on heterosexual orientation (2,8,16). Educators attribute these shortcomings in SRH education to a lack of time and the priority of other content (2,9). To provide adequate and quality care to healthy/sick individuals, nurses must receive primary SRH content that enables them to acquire sufficient information during their undergraduate education (1,8,9).

Main Points

- Graduate nurses are expected to be able to provide essential sexual and reproductive health education and nursing care for sexual dysfunctions and reproductive health problems.
- The curriculum of undergraduate nursing programs in Turkey does not include enough sexual and reproductive health courses.
- There are differences in the name, type, semester, evaluation criteria, learning methods, national and European Credit Transfer System credits, theoretical course hours, and course contents of the sexual and reproductive health courses carried out in their programs.

Studies examining the extent to which the United States of America includes SRH content in the curriculum of nursing programs, human sexuality, pregnancy, and prenatal health, nursing care in the postpartum and postpartum period, family and women's health, family planning, nursing care in sexually transmitted diseases and chronic diseases that may affect SRH, socio-cultural, economic, political or ethical factors that affect the delivery of sexual health services are stated as actual contents (9,13,14). In the curricula of nursing programs in Europe, the content of SRH is traditionally structured in two areas. One of these areas is reproductive health, which includes the care of women during pregnancy, childbirth, and puerperium, and the other is sexual health, which focuses on sexuality and sexual relations (7,17). In other countries, such as China (18), Ethiopia (19), or Argentina (20) the SRH content of the curriculum of nursing programs is mainly focused on reproductive health.

In Turkey, on the other hand, no comprehensive research has been encountered on the courses and contents of SRH in the curriculum of nursing programs. However, it was emphasized in the National Nursing Core Education Program, which was held in 2014 to determine the minimum standards of the nursing undergraduate education program in the national framework and to ensure country standardization that the subject of "sexual health/reproductive health" should be included in the essential components of the education programs of institutions providing undergraduate education in nursing. It is expected that a nurse who graduated from an undergraduate nursing program will be able to provide basic level SRH education specific to age/development periods and to provide nursing care in sexual dysfunctions and reproductive health problems (21). This research will contribute to the literature revealing the current status of SRH education in nursing undergraduate programs in Turkey.

Research Aim and Questions

This study aimed to examine the characteristics of the SRH course in nursing undergraduate program curricula in Turkey. For this purpose, answers to the following questions were sought. In undergraduate nursing programs;

(i) What are the characteristics of universities offering SRH courses?

(ii) What are the features of SRH courses?

(iii) What are the contents of SRH courses?

Material and Methods

Study Design and Sample

This study used a descriptive and cross-sectional design using a scanning model to examine the characteristics of the SRH course in nursing undergraduate program curricula in Turkey. The screening model is a research model that aims to detect and show an existing situation (22).

The research universe consisted of all universities with nursing undergraduate programs in Turkey. According to the 2023 data from the Council of Higher Education, there are 154 undergraduate nursing programs, 103 of which are at state universities and 51 at private universities (23). The study sample consisted of 95 undergraduate nursing programs with SRH courses in their curriculum. This number represents 61.69% of the universe. Programs that do not have a SRH course in their curriculum (n=59) were excluded from the study. The data were gathered between 1-31 January 2023.

Data Collection Instrument

The data collection form created by the researchers in line with the literature (1,7,9,14) was used to collect the data. To determine the suitability of the research form, expert opinion was obtained from three lecturers with doctorate degrees in obstetrics and gynecology nursing. The form was finalized based on expert opinions. In the form, there are 14 questions about the nursing program's SRH course inclusion status, university ownership, course name, the year the course was given, learning methods, the theoretical hour of the course, etc.

Data Collection

The data were collected by examining the web pages of the universities included in the scope of the study in line with the questions stated in the questionnaire between 1-31 January 2023. In the first stage, universities with undergraduate nursing programs were determined in the 2022-2023 academic year, and then the education/course programs published on the websites of undergraduate nursing programs and the Bologna course information packages, if any, were examined, and the presence of SRH courses in their curricula was determined. Secondly, the data of the research were transferred to the data collection form by examining the education/course programs of the nursing programs with SRH courses and the Bologna course information packages, if any. Thirdly, similar titles were combined in the course contents and grouped under three headings: "sexual health", "reproductive health", and "SRH", Expert opinion was taken from three lecturers with doctorate degrees in obstetrics and gynecology nursing in the merging and categorization of the course contents in line with their similarity, and the grouping of the course contents was finalized by taking into account the suggestions of the experts. It took approximately 30-40 minutes to fill out each data collection form.

Statistical Analysis

The data was analyzed using Statistical Package for the Social Sciences (SPSS) 22.0, and numbers and percentages were used to present the data.

Ethical Considerations

Since the Higher Education Information Management System and the web pages of universities are accessible and the research does not include human participants, ethics committee and institutional permission approval was not required for this study.

Results

Table 1 shows the distribution of SRH courses according to their presence in the nursing undergraduate program curriculum. In Turkey, 61.69% of 154 state (n=103) and foundation (n=51) universities with undergraduate nursing programs have SRH courses. Most universities with SRH courses in their curriculum are state universities (73.7%), and the academic unit of 88.4% is the faculty of health sciences.

Table 2 shows information about SRH courses. It was determined that 90.5% of the courses had the Bologna information package. In the research, it was determined that SRH courses were carried out under different names, and they were primarily included in the curriculum with the names "sexual health" (34.7%), "sexual health and reproductive health" (31.5%), and "reproductive health" (9.4%). It was determined that 94.6% of the courses were

Table 1.
Distribution of Sexual Health and Reproductive Health Course in the Nursing Undergraduate Program Curriculum

Characteristics	**n**	**%**
Availability in the curriculum (n=154)		
Yes	95	61.69
No	59	38.31
State university (n=103)		
Yes	70	68
No	33	32
Foundation university (n=51)		
Yes	25	49.02
No	26	50.98
University ownership (n=95)		
State	70	73.7
Foundation	25	26.3
Affiliated academic unit (n=95)		
Faculty of health sciences	84	88.4
Faculty of nursing	9	9.4
School of nursing	1	1.1
Health college	1	1.1

Table 2.
Distribution of Information on Sexual and Reproductive Health Courses

Characteristics	n	%
Availability of Bologna course information package (n=95)		
Yes	86	90.5
No	9	9.5
Name of the course (n=95)*		
Sexual health	33	34.7
Sexual and reproductive health	30	31.5
Reproductive health	9	9.4
Reproductive health and family planning	7	7.4
Family planning and sex education	3	3.2
Sexual health and family planning	3	3.2
Reproductive health/sexual health nursing	2	2.0
Sexuality and sexual health	2	2.0
Other**	6	6.6
Type of the course (n=93)*		
Compulsory	5	5.4
Elective	88	94.6
Semester (n=83)*		
1. semester	6	7.2
2. semester	5	6.1
3. semester	2	2.4
4. semester	20	24.1
5. semester	20	24.1
6. semester	14	16.9
7. semester	8	9.6
8. semester	8	9.6
Evaluation criteria (n=74)*		
Final exam	74	100.0
Midterm exam	72	97.3
Homework	7	9.5
Quiz	4	5.4
Practice	1	1.4
Seminar	1	1.4
Learning methods (n=20)*		
homework/individual work	12	60.0
Presentation/seminar preparation	8	40.0
Discussion/brainstorming/six hats	8	40.0
Question answer	6	30.0
Teamwork/group work	6	30.0
Expression	3	15.0
Problem solution	2	10.0
Other***	3	1.5
National credit (n=92)*		
2 credits	86	93.5
3 credits	6	6.5
ECTS (n=93)*		
1 ECTS	1	1.1
2 ECTS	32	34.4
3 ECTS	34	36.6
4 ECTS	18	19.3
5 ECTS	6	6.5
6 ECTS	2	2.1
Theoretical class hours (n=94)*		
2 hours	89	94.7
3 hours	5	5.3

=evaluation was made on the courses in which the relevant contents were shared in the Bologna course information package. **=other course names; sexual health education, sexual health and gender, sexual health ınformation, women's sexual health, privacy and sexual development, healthy sexual life (n=1 for each course name), *=other learning methods; demonstration, role playing/demonstration, project (n=1 for each course name), ECTS=European Credit Transfer System*

elective courses, mainly in the 4th (24.1%) and 5th (24.1%) semesters. Final (100%) and midterm exams (97.3%) are the most common evaluation criteria of the course, and learning methods include homework/individual study (60%), presentation/seminar preparation (40%), and discussion/brainstorming/six hats (40%). The national credit of 93.5% of the courses is 2, 36.6% of them have European Credit Transfer System (ECTS) credits of 3, and 94.7% have 2 theoretical course hours.

Table 3 shows the data obtained from 77 undergraduate nursing programs whose SRH course content is shared and the distribution of the analyzed course content. In the research, content analysis was carried out to determine the essential topics in the content of the SRH course, and 27 topics directly related to SRH was created. The most common topics in sexual health curricula were determined as "sexuality and sexual health concept" (89.6%), "risky sexual behaviors" (85.7%), and "sexually transmitted diseases" (74.0%), respectively. The most common topics in reproductive health curricula are "formation of pregnancy" (28.6%), "reproductive health services in the world and Turkey" (27.3%), and "safe motherhood" (15.6%). The most common topics in the curricula of SRH are, respectively "factors affecting sexual health and reproductive health (media, internet, religion, culture, family, values, myths, etc.)" (83.1%), "SRH rights and legal dimension" (75.3%) and "development periods and sexual and reproductive health" (55.8%) (Table 3).

Table 3.
Distribution of Sexual and Reproductive Health Course Content

Course content (n=77)*	**n**	**%**
Sexual health		
Sexuality and sexual health concept	69	89.6
Risky sexual behaviors	66	85.7
Sexually transmitted diseases	57	74.0
Family planning	56	72.7
Sexual dysfunctions	55	71.4
Physiology and anatomy of the genitals	47	61.0
Sexual and reproductive health in disadvantaged groups	44	57.1
Violence, sexual violence and sexual abuse	40	51.9
Sexual orientation and gender identity	35	45.5
Physiology of sexual act	34	44.2
Sexuality in special cases (infertility, pregnancy, cancer, menopause, chronic disease, etc.)	32	41.6
Abnormal behavior	14	18.2
Sexual health models	11	14.3
Psychosocial dimension of sexuality	8	10.4
Reproductive health		
Formation of pregnancy	22	28.6
Reproductive health services in the world and in Turkey	21	27.3
Safe motherhood	12	15.6
Unsafe abortion and abortion, regulations	8	10.4
Menstrual hygiene	4	5.2
Sexual and reproductive health		
Factors affecting sexual and reproductive health (media, internet, religion, culture, family, values, myths, etc.)	64	83.1
Sexual and reproductive health rights and legal dimension	58	75.3
Developmental stages and sexual and reproductive health	43	55.8
Sexual and reproductive health problems in the world and in Turkey	35	45.5
Sexual and reproductive health counseling	31	40.3
Sexual and reproductive health education	27	35.1
National and international sexual and reproductive health strategies and policies	11	14.3
Multidisciplinary approach in sexual and reproductive health	2	2.6

**=the course content was evaluated based on the courses for which the course content was shared in the Bologna course information package*

Discussion

This study analyzed the characteristics of the SRH course in nursing undergraduate program curricula in Turkey. The research findings showed that the SRH course needs to be sufficiently included in the curriculum of the undergraduate nursing program, and there are differences between the programs in the functioning and content of the SRH course.

In the research, it was determined that 61.69% of the undergraduate nursing programs had SRH courses. Saus-Ortega et al. (7) reported that 96.3% of nursing undergraduate programs in Spain have SRH courses in their curriculum. In the study by Aaberg (1) conducted with the educators of nursing undergraduate programs in the USA, he stated that 27% of the nursing programs do not include sexuality education. In the same study, all of the trainers who gave sexuality education in their curriculum stated that they placed SRH in the content of other courses in the nursing curriculum, not as a separate course (1). Our research finding shows that despite the strong recommendations of both WHO and National Nursing Core Education Program (NNCEP), the SRH course is limited in undergraduate nursing curricula. It is recommended that universities that do not have SRH courses in their curricula should evaluate their nursing undergraduate program curricula, considering the current situation.

SRH courses can be included in the undergraduate nursing curriculum with different methods. McLemore and Levi (13) emphasize that the SRH course is mainly included in the curriculum in a limited way, and if it is included as a separate course, it is left to the student's choice as an elective course. The research determined that almost all SRH courses are included in the curriculum as elective courses. In addition, it was determined that the SRH course mostly took place in the 4th and 5th semesters of the curriculum and had 2 national credits and 3 ECTS credits. In some nursing undergraduate programs in the USA, the SRH course is given as a compulsory course, 3 national credits in the 5th or 6th semester (24,25). In comparison, in some of them, it is included in the curriculum as 3 national credits and can be taken in any semester (26). Saus-Ortega et al. (7) reported that the SRH course is predominantly in the third year of nursing undergraduate programs in Spain, and the course has 6 ECTS credits. Similar to our research results, it is seen that there are differences between universities in the ECTS credits of the SRH course. For example, the SRH course has 4.5 ECTS credits at the University of Valencia (27), while its credits at the Autonomous University of Barcelona are 3 ECTS (28). These differences in the semester in which the SRH course is given, especially in the national credit or ECTS credit of the course, may affect the content of the course and cause the basic SRH subjects not to be adequately covered in the course content. However, these results obtained from the study confirm the suggestions of previous researchers (3,10,11) that insufficient attention to SRH content in nursing programs contributes to nurses' inability to provide SRH services to healthy/sick individuals.

It is seen that SRH courses are offered under different names in the undergraduate nursing programs included in the research, and most of them call the course "sexual health" and "sexual health and reproductive health". When the curricula of nursing undergraduate programs in different countries are examined, it is seen that the SRH course is named with different names such as "Reproductive and sexual health nursing" (24), "reproductive and sexuality concepts" (25), "human sexuality" (26), and and "sexual education" (28).

The findings regarding the evaluation criteria and learning methods of the SRH course are limited since some of the universities examined in the study need to include the syllabus content on their web pages. Within the scope of the examination, the evaluation criteria of the course were reached on the web pages of 74 universities, and it was determined that the final exam was used as the evaluation method in all of them and the midterm exam in 97.3% of them. The learning methods of the course were accessed from the web pages of only 20 universities, and most of them were homework/individual study, presentation/seminar preparation, and discussion/brainstorming/six hat methods. This situation reveals that sharing information about the course evaluation criteria and learning methods on the web pages of universities needs to be improved.

When the NNCEP, which was created to ensure the standardization of nursing education at the national level, is examined, the content for SRH is quite limited (21). This situation may cause the content to be formed in line with the decision of the nursing programs and the instructors who teach SRH courses in these programs. In addition, it can lead to content differences between the curricula and cause inequalities in the education that students receive depending on the university they study (7). In the research, it was determined that the course contents of the programs with SRH courses in their curricula were different from each other. Similarly, it is emphasized in the literature that the contents of SRH courses in nursing programs are different from each other (1,7,9). Most educators decide on the topics that should be included in the course content, mainly by considering which ones will benefit the students the most (9). For nursing students to receive a homogeneous and desired level of SRH content, educators should evaluate the content of the SRH course. This evaluation should not include a certain number of topics but should aim to present critical content to all nursing students (29). Knowing the subjects included in the SRH course content examined in this research is very important to carry out the education improvement process in this field. Research findings can be an essential tool for educators to review the curriculum of their programs and reflect on the content they teach on SRH issues. However, it can serve as a basis for updating the teaching guides of undergraduate nursing programs in Turkey.

It has been determined that most of the 27 SRH course content topics determined in the research are in the field of sexual health. In addition, it has been determined that the subjects of "sexuality and sexual health", "risky sexual behaviors", "sexually transmitted diseases", "family planning", and "sexual dysfunctions" have a moderate prevalence in the course content. This finding is consistent with the results of previous studies (9,14). The main subjects identified in our research were accepted as the subjects that should be included in the undergraduate nursing program curriculum to develop SRH competencies in students in the USA (1) and Europe (7). Aaberg (1) stated that SRH courses do not have authoritative content and are mostly limited to general topics such as anatomy and physiology, formation of pregnancy, birth control, normal sexual function, sexual dysfunction, and sexually transmitted infections. The study's findings show that the SRH content in most curricula may not be sufficient for students to acquire the basic information that will enable them to increase their knowledge level on sexual health. To determine the current situation, it is recommended to research to evaluate the sexual health knowledge levels of nursing students.

Study Limitations

The main limitation of this research is that the content of Bologna course information packages may have yet to be published or presented in a general way on the web pages of some nursing programs. However, this research, which was conducted for the first time to examine the SRH

courses offered in the undergraduate nursing programs of universities in Turkey, made it possible to map the current status of the SRH course, which contents are included, and which ones are the most common.

In addition, in this study, only the SRH course was focused on. The courses such as obstetrics and gynecology nursing, oncology nursing, ınternal medicine nursing, geriatric nursing, etc., in the curriculum of the nursing undergraduate program, also include the content of the SRH course.

Conclusion

In this research, it has been determined that SRH courses need to be sufficiently included in the curriculum of nursing undergraduate programs in Turkey. In addition, although most of the programs with SRH courses have a Bologna course information package, it has been observed that the components (the semester in which it is given, evaluation criteria, learning methods, etc.) are either not shared at all or are shared superficially. It has been determined that there are differences in the name, type, semester, evaluation criteria, learning methods, national and ECTS credits, theoretical course hours, and course contents of the SRH courses conducted in the undergraduate nursing programs of the universities within the scope of the research.

In line with the research results, it is recommended to minimize the differences in SRH courses, provide standardization by reviewing the course contents, and integrate the SRH course into the curriculum of nursing undergraduate programs throughout the country. It is predicted that the research results will contribute to the development of SRH education in nursing undergraduate programs and to the graduation of nursing students who will take responsibility for the care of healthy/sick individuals in the future as having competence in SRH.

Ethics Committee Approval: Since the Higher Education Information Management System and the web pages of universities are accessible and the research does not include human participants, ethics committee and institutional permission approval was not required for this study.

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References

1. Aaberg V. The state of sexuality education in baccalaureate nursing programs. Nurse Educ Today 2016;44:14-19. [Crossref]
2. Blakey EP, Aveyard H. Student nurses' competence in sexual health care: A literature review. J Clin Nurs 2017;26(23-24):3906-3916. [Crossref]
3. O'Connor SR, Connaghan J, Maguire R, Kotronoulas G, Flannagan C, Jain S, et al. Healthcare professional perceived barriers and facilitators to discussing sexual wellbeing with patients after diagnosis of chronic illness: A mixed-methods evidence synthesis. Patient Educ Couns 2019;102(5):850-863. [Crossref]
4. WHO. Sexual Health. 2023. [Crossref]
5. WHO. Reproductive Health. 2023. [Crossref]
6. WHO. Education and treatment in human sexuality: the training of health professionals. Geneva, World Health Organization, 1975 (WHO Technical Report Series No. 572). 1975. [Crossref]
7. Saus-Ortega C, Ballestar-Tarín ML, Chover-Sierra E, Martínez-Sabater A. Contents of the Sexual and Reproductive Health Subject in the Undergraduate Nursing Curricula of Spanish Universities: A Cross-Sectional Study. Int J Environ Res Public Health 2021;18(21):11472. [Crossref]
8. Martin Walker C, Anderson JN, Clark R, Reed L. The Use of Nursing Theory to Support Sexual and Reproductive Health Care Education in Nursing Curricula. J Nurs Educ 2023;62(2):69-74. [Crossref]
9. Cappiello J, Coplon L, Carpenter H. Systematic Review of Sexual and Reproductive Health Care Content in Nursing Curricula. J Obstet Gynecol Neonatal Nurs 2017;46(5):e157-e167. [Crossref]
10. Wang P, Ai J, Davidson PM, Slater T, Du R, Chen C. Nurses' attitudes, beliefs and practices on sexuality for cardiovascular care: A cross-sectional study. J Clin Nurs 2019;28(5-6):980-986. [Crossref]
11. Vermeer WM, Bakker RM, Kenter GG, de Kroon CD, Stiggelbout AM, ter Kuile MM. Sexual issues among cervical cancer survivors: how can we help women seek help? Psychooncology 2015;24(4):458-464. [Crossref]
12. Tsai LY, Huang CY, Liao WC, Tseng TH, Lai TJ. Assessing student nurses' learning needs for addressing patients' sexual health concerns in Taiwan. Nurse Educ Today 2013;33(2):152-159. [Crossref]
13. McLemore MR, Levi AJ. Expanding Access to Sexual and Reproductive Health Services Through Nursing Education. J Obstet Gynecol Neonatal Nurs 2017;46(5):e149-e156. [Crossref]
14. Simmonds K, Cappiello J, Hoyt A. Sexual and reproductive health content in nurse practitioner transition to practice training programs. Contracept X 2019;1:100005. [Crossref]
15. Mecugni D, Gradellini C, Caldeira E, Aaberg V, Dias H, Gómez-Cantarino S, et al. Sexual Competence in Higher Education: Global Perspective in a Multicentric Project in the Nursing Degree. Healthcare (Basel) 2021;9(2):166. [Crossref]
16. Walker K, Arbour M, Waryold J. Educational Strategies to Help Students Provide Respectful Sexual and Reproductive Health Care for Lesbian, Gay, Bisexual, and Transgender Persons. J Midwifery Womens Health 2016;61(6):737-743. [Crossref]
17. Kouta C, Athanasopoulou M. Education on Sexual and Reproductive Health Within the Context of European Policy: A Literature Review. Hell J Nurs Sci 2009;2(2):49-52. [Crossref]
18. Ma X, Yang Y, Chow KM, Zang Y. Chinese adolescents' sexual and reproductive health education: A quasi-experimental study. Public Health Nurs 2022;39(1):116-125. [Crossref]
19. Boti N, Hussen S, Shegaze M, Shibiru S, Zerihun E, Abebe S, et al. Process Evaluation of Curriculum Based Sexual and Reproductive Health Education Among First Year Students in Arba Minch University : Qualitative Study. Ethiopian Journal Of Reproductive 2019;11(3):49-58. [Crossref]

20. Castro BP. A Study of First-and Final-Year Healthcare Students of the University of Buenos Aires, Argentina. Doctoral thesis, University of Oslo, Argentina: 2018. [Crossref]
21. Hemşirelik Ulusal Çekirdek Programı (HUÇEP). Hemşirelik Ulusal Çekirdek Programı (HUÇEP) 2014. 2014. [Crossref]
22. Karasar N. Bilimsel Araştırma Yöntemleri. 38. Basım. Ankara: Nobel Yayınları; 2023. [Crossref]
23. Yükseköğretim Kurulu. Üniversitelerimiz. 2023. [Crossref]
24. University of Southern Maine. Nursing, Traditional Program, B.S. 2023. [Crossref]
25. Briar Cliff University. Briar Cliff University Pre-Licensure BSN Curriculum. 2021. [Crossref]
26. Murray State University. School of Nursing and Health Professions. 2020. [Crossref]
27. University of Valencia. Degree in Nursing. 2023. [Crossref]
28. Autonomous University of Barcelona. Bachelor's Degree in Nursing. 2023. [Crossref]
29. American Association of Colleges of Nursing. Women's Health Curricula: Final Report on Expert Panel Recommendations for Interprofessional Collaboration across the Health Professions. 2013. [Crossref]

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ORIGINAL ARTICLE

Self-care Power and Healthy Lifestyle Behaviors in Persons with Severe Mental Illness

Ağır Ruhsal Hastalığı Olan Bireylerde Öz Bakım Gücü ve Sağlıklı Yaşam Biçimi Davranışları

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Abstract

Objective: The purpose of the study was to examine the self-care power and healthy lifestyle behaviors of persons with severe mental illness.

Method: The research was carried out with 99 chronic psychiatric patients who applied to community mental health centres of one training and research hospital, two state hospitals. Data were collected using the healthy lifestyle behaviors scale II and the self-care power scale.

Results: The highest level of healthy lifestyle behavior is in the dimensions of spiritual development and interpersonal relations, and the lowest level is in the dimension of physical activity. A moderately positive and significant relationship was found between the mean scores of healthy lifestyle behaviors and the mean scores of self-care power.

Conclusion: In the study, the relationship between the healthy lifestyle behaviors of the patients and their self-care power was revealed. It is recommended that poor patients, young patients, and those with low social support should be evaluated as risky groups in terms of healthy lifestyle problems in community mental health centers and plans should be made to improve self-care power.

Keywords: Severe mental illness, healthy lifestyle behaviors, self-care power, community mental health center

Öz

Amaç: Bu çalışmanın amacı, ağır ruhsal hastalığı olan bireylerin öz bakım gücü ve sağlıklı yaşam biçimi davranışlarını incelemektir.

Yöntem: Araştırma, bir eğitim ve araştırma hastanesi ve iki devlet hastanesinin toplum ruh sağlığı merkezlerine başvuran 99 kronik psikiyatri hastası ile gerçekleştirilmiştir. Veriler, sağlıklı yaşam tarzı davranışları ölçeği II ve kendine bakım gücü ölçeği kullanılarak toplanmıştır.

Bulgular: Sağlıklı yaşam biçimi davranışı en yüksek düzeyde ruhsal gelişim ve kişilerarası ilişkiler boyutlarında, en düşük düzey ise fiziksel aktivite boyutundadır. Sağlıklı yaşam biçimi davranışları puan ortalamaları ile öz bakım gücü puan ortalamaları arasında orta düzeyde pozitif ve anlamlı bir ilişki bulunmuştur.

Sonuç: Çalışmada hastaların sağlıklı yaşam biçimi davranışları ile öz bakım güçleri arasında pozitif ilişki olduğu ortaya konulmuştur. Toplum ruh sağlığı merkezlerinde yoksul hastaların, genç hastaların ve sosyal desteği düşük olanların sağlıklı yaşam sorunları açısından riskli gruplar olarak değerlendirilmesi ve öz bakım gücünü geliştirmeye yönelik planlar yapılması önerilmektedir.

Anahtar Kelimeler: Ağır ruhsal hastalığı olan bireyler, sağlıklı yaşam biçimi davranışları, öz bakım gücü, toplum ruh sağlığı merkezi

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Introduction

The life expectancy of chronic psychiatric patients is approximately 25 years less than that of the general population (1). It is stated that especially the lifestyle behaviors of the patients have a determinant role in this situation (1,2). The ability of people to manage the behaviors that affect their health is defined as a healthy lifestyle (3). In persons with severe mental illness factors such as irregular diet, sedentary living, lack of self-care, smoking, unemployment, poverty, and long-term side-effects of psychotropic drugs increase the risk of obesity and other physical health problems diminishing lifespan (4-10). It is stated that most of the psychiatric patients die from cardiovascular disease or metabolic complications, infection, or respiratory system diseases (11). All these study results suggest that the healthy lifestyle behaviors and self-care of the patients are not good.

Various factors especially self-care power influence the development of healthy lifestyle behaviors (12,13). People with high self-care power are thought to sustain healthy lifestyle behaviors more consistently over time (7,13,14). In the Riegel et al. (7) study, they examined people's difficulty in self-care in two groups: Behavior change and disease-related factors. The behavior change factors address habits, motivation, decision making, and the challenges of persistence. The illness related factors address specific issues that make self-care exceedingly difficult-multimorbidity, symptoms, and stressful life events. The literature contains studies on the self-care power of individuals are mostly related to physical diseases (15-18) but shows few studies examining the self-care power of persons with severe mental illness (7,19-22). In these studies, it was found that the self-care power of the patients was moderate. Due to small sample size and differing durations and variables involved in these studies, more thorough investigation is needed, and there have been literature reviews recommending additional research. Lucock et al. (23) reviewed 20 studies on self-care in psychiatric disorders and recommended further research on patients' views of the basic elements of self-care and effective self-care support. Chen et al. (24) found that outpatients with a diagnosis of both schizophrenia and type 2 diabetes scored significantly lower on measures of self-efficacy and self-care than outpatients affected by type 2 diabetes alone and stated that a self-efficacy education program should be developed to help patients successfully manage their dual illnesses. Holmberg and Kane (25) found that people with schizophrenia are less likely to engage in self-care or health-enhancing activities compared to the general population. Çiftçi et al. (19) have suggested that people with mental disorders have difficulty in determining their needs for self-care and that periodic training programs are required to increase their self-care levels and have recommended that this type of advanced research should be done on larger groups.

Main Points

- It has been determined that as the self-care power scores of individuals with severe mental illness increase the scores of healthy lifestyle behaviors increase.
- Patients with a good income level have higher scores in all dimensions of healthy lifestyle behaviors.
- Nurses working with patients; they can develop healthy lifestyle behaviors by increasing the self-care power of patients.

Healthy lifestyle practices have been used to a limited extent in the mental health field (7). However, people with severe mental illness such as schizophrenia require careful baseline assessment and ongoing monitoring of physical health parameters to avoid co- morbid health complications. Treatment and prevention strategies should include encouraging healthy lifestyles modification (26-29). Self-care is emphasized as integral to a patient-centered management of long-term health conditions and disease prevention through healthy lifestyle practices (15). Prioritizing self-care power may be effective in developing healthy lifestyle behaviors. We could not find any study of the relationship between self-care power and healthy lifestyle behaviors in persons with severe mental illness. To increase the self-care powers of the patients and improve their lifestyles, there is a need to know their status regarding their self-care powers and healthy lifestyle behaviors (7,30).

In the community mental health centers, psychiatric nurses assume important responsibilities regarding the development of patients' self-care power and healthy lifestyles (4,31,32). McKibbin et al. (33) stated that community mental health providers identified multiple levels of influence on the health behaviours of adults with serious mental illness. They also stressed that successful health promotion programs for this population be frequent and ongoing.

Nurses can provide the most comprehensive assessment of patient needs and can ensure the development of healthy lifestyle behaviors by identifying and supporting the self-care power of the patients they care for. It is expected that the data to be obtained from the study will be a data source for the definition of these characteristics of the patients and for the development of programs.

Purpose

This study aimed to examine the self-care power and healthy lifestyle behaviors of persons with severe mental illness, and related factors.

Research Questions

1. What are the patients' self-care power and healthy lifestyle behaviors scale and subscale mean scores?

2. Is there a significant difference between the descriptive characteristics of the patients and the healthy lifestyle behaviors scale and subscale mean scores and self-care power scale mean scores?

3. Is there a relationship between patients' self-care power and healthy lifestyle behaviors scale and subscale mean scores?

Material and Methods

Setting
This descriptive research was conducted within three community mental health centers (CMHC) affiliated with a training and research hospital and two state hospitals. CMHC operate to provide psychosocial support services to patients with severe mental disorders (bipolar disorder, schizophrenia, schizoaffective disorder, and atypical psychosis) within the framework of mental health services based on the community hospital balance model. The team consists of psychiatrists, nurses, social workers, and occupational therapists.

Population/Sample of the Research
Data was collected from 99 patients who consulted CMHC and who met the sample selection criteria. Selection criteria are persons with severe mental illness over the age of 18 who are registered in the CMHC and who have the diagnosis of one of the severe mental illnesses (schizophrenia and similar psychotic disorders, mood disorders-bipolar disorder) according to the DSM-V-TR diagnostic criteria, who live with their family or alone.

Data Collection Tools
Patient descriptive information form, healthy lifestyle behavior scale II (HLBS II) and self-care power scale were used as the data collection tools.

a) Introductory information form
The form includes individuals' age, gender, marital status, education, employment, and economic status, who they live with, how long they have had the disease, hospitalization and health follow-up history, CMHC attendance history, smoking/alcohol/substance use, and support networks. The form has been developed by the researchers. There are 15 questions in the form (34,35).

b) Self-care Power Scale
Developed by Kearney and Fleischer, this scale measures individuals' ability to carry out the activities required to sustain their health. Nahcivan (36) conducted its Turkish validity-reliability study. The scale is in a five-point Likert type and includes 35 items, and the statements are scored between 0-4. The minimum and maximum scale scores obtainable are 0 and 140. Increasing scores correlate to increasing self-care power (36). The Cronbach's alpha value of the scale was determined as 0.88 in this study.

c) HLBS II
Developed by Pender et al. in 1987 and updated by Walker and Hill-Polerecky (3), this scale was the subject of a Turkish validity and reliability study by Bahar et al. (37). The HLBS II scale is a 4-point Likert-type scale consisting of 52 items. The scale consists of six sub-dimensions: "Health responsibility", "physical activity", "nutrition", "spiritual growth", "interpersonal relationships" and "stress management". The minimum and maximum scale scores obtainable are 52 and 208. High scores correlate to well-developed healthy lifestyle behavior of individuals is (37). The Cronbach's alpha value of the scale was 0.92 in this study.

Data Collection
The researchers herself collected the study data after obtaining written consent from patients meeting the selection criteria. Consenting participants were invited to complete the data collection questionnaires, but since some expressed boredom or difficulty understanding the items on the questionnaire, much of the data was collected in face-to-face interviews.

Statistical Analysis
Statistical Package for the Social Sciences (SPSS) 16.0 was used for the statistical evaluation of the data. Non-parametric tests were used because data did not show normal distribution. Since the total scores of the scales and subscales are considered as dependent variables, Kruskal-Wallis analyses and Mann-Whitney U test were used to determine whether the independent variables affected the sub-dimensions of the scales and scales. To determine the group that created the difference in the variables with more than two groups and the significant difference was detected, the advanced analysis method post-hoc multiple comparisons Tukey test was applied. Pearson's Correlation analysis was used to analyze the relationship between health life behaviour scale and self-care power scale score. The significance value was evaluated as $p \leq 0.05$.

Ethical Aspect of the Research
Written permission was granted by the Non-Interventional Research Ethics Committee of Üsküdar University (meeting 10, October 17, 2017) and by the Southern Public Hospitals Association where the institutions hosting the study were affiliated. Written informed consent was also obtained from the participants.

Results

More than half of the 99 patients who participated in the study were diagnosed with schizophrenia. Their mean age was 40.98, and most of them were male and single. 88.9% of the patients were unemployed. 30.3% of the patients attended the community mental health center for a period of one to eleven months. It was determined that 98% of them used their medications regularly, almost all of them went to health check-ups, about half of them smoked, 91.9% did not use alcohol, and 85.9% had someone who supported them in difficult/challenging situations (Table 1).

Spiritual development and interpersonal relationships, the highest average of the patients from the healthy lifestyle scale, it is seen that the low average is in the physical activity sub-dimension. Also, it is seen that the self-care power scale scores of the patients are close to the maximum value (Table 2).

Table 1.
Descriptive Characteristics of the Patients

Variables	(n)	(%)
Gender		
Female	34	34.3
Male	65	65.7
Age		
31-49	31	31.3
50-80	68	68.7
Diagnoses		
Schizophrenia	68	68.7
Bipolar disorder	19	19.2
Schizoaffective disorder	5	5.1
Non-organic psychosis	7	7.0
Marital status		
Married	14	14.1
Single	69	69.7
Widow(er)	16	16.2
Educational status		
Illiterate	3	3.0
Primary school	49	49.5
High school	35	35.4
University	12	12.1
Employment status		
Employed	11	11.1
Unemployed	88	88.9
Income level		
Good	19	19.2
Moderate	61	61.6
Bad	19	19.2
People they live with		
Alone	10	10.1
With his or her own family	63	63.6
With his/her spouse and children	12	12.1
Other (friends, distant relative)	14	14.1
Regular use of medications		
Yes	97	98.0
No	2	2.0
Status of going to health check-ups		
Regular	95	96.0
Irregular	4	4.0
Smoking status		
Yes	46	46.5
No	53	53.5
Alcohol/substance use status		
No	91	91.9
Yes (alcohol)	8	8.1
State of having a supporter in difficult/ challenging situations		
Yes	85	85.9
No	14	8.1
Duration of the illness ($\bar{x}$=16.22±10.37)		
1-15 years	39	50.0
16-40 years	39	50.0
Number of hospitalizations ($\bar{x}$=4.10±4.95)		
0-11	64	64.6
12-28	4	4.0
Duration of attendance at CMHC ($\bar{x}$=19.11±15.56)		
1-11 months	30	30.3
12-30 months	37	37.4
36-60 months	20	20.2

CMHC=community mental health centers

Table 2.
Patients' Healthy Lifestyle Scale Sub-dimension Scores and Self-care Power Scale Scores

HLBS sub-dimensions and self-care power scale	$\bar{X}$ ± SS	Min-max
Health responsibility	20.83±5.182	9-36
Physical activity	13.69±6.548	8-32
Nutrition	19.83±5.184	9-36
Spiritual development	24.22±4.991	9-36
Interpersonal relationships	24.21±5.184	9-36
Stress management	18.73±4.808	8-32
Self-care power scale	121.98±20.846	0-140

HLBS=healthy lifestyle behavior scale

The study found no statistically significant difference between the total mean scores of the gender and the people with whom the patients lived, and the sub-dimensions of the HLBS (Table 3). The study found a statistically significant difference between age and nutrition, one of the sub-dimensions of HLBS, and found the nutrition score to be higher in those aged 50-80 compared to those aged 31-49 (p=0.020). The study found a statistically significant difference between smoking and nutrition, which is one of the HLBS sub-dimensions (p=0.028), and the nutrition score was found to be higher in non-smokers than in smokers.

The study found a significant difference between the income levels of the patients and health responsibility (p=0.024), physical activity (p=0.004), nutrition (p=0.022), spiritual growth (p=0.028), interpersonal relationships (p=0.049), and stress management (p=0.005) scores, which are all sub-dimensions of HLBS. Post-hoc analysis applied to the health responsibility (p=0.042), physical activity (p=0.021), nutrition (p=0.048), spiritual growth (p=0.049) and stress management (p=0.025) data determined that a significant difference between those with high income levels and those with medium income levels.

The study also found a statistically significant difference between the presence of a support network in crisis situations and the HLBS sub-dimensions, health responsibility score (p=0.009) and nutrition score (p=0.027). Those having a supporter in difficult/challenging situations were found to score higher in the health responsibility subdimension than those who did not have a supporter. In addition, those having a supporter in difficult/challenging situations were found to score higher in the nutrition sub-dimension than those who did not have a supporter. A statistically significant difference was found between the duration of illness and the health responsibility score, one of the HLBS sub-dimensions (p=0.021), and between the frequency of coming to the CMHC and the physical activity score, one of the HLBS sub-dimensions (p=0.013) (Table 3). Post-hoc analysis of the data of the frequency of CMHC attendance determined that a significant difference was between those with 12-30 months of frequency in coming to CMHC and those with 30-60 months of frequency (p=0.039).

Table 3.
Comparison of the Total Mean Scores of the HLBS Sub-dimension and Self-care Power Scale According to the Descriptive Information of the Patients (n=99)

Descriptive information	n	Health responsibility $\bar{x} \pm SD$	Physical activity $\bar{x} \pm SD$	Nutrition $\bar{x} \pm SD$	Spiritual growth $\bar{x} \pm SD$	Interpersonal relationships $\bar{x} \pm SD$	Stress management $\bar{x} \pm SD$	Self-care power $\bar{x} \pm SD$
Gender								
Female	34	21.18±5.28	14.76±8.08	20.29±5.08	24.76±4.99	25.00±4.47	18.62±4.53	18.62±4.53
Male	65	20.65±5.15	13.13±5.55	19.58±5.25	23.94±5.00	23.80±6.63	18.78±4.97	18.78±4.97
p=		0.804	0.671	0.231	0.416	0.137	0.894	0.256
Age*								
31-49	31	19.55±5.74	14.20±8.13	18.45±5.48	23.68±5.48	23.03±5.29	17.77±4.28	117.13±23.76
50-80	68	21.41±4.83	13.47±5.77	20.46±4.95	24.47±4.77	24.75±6.23	19.16±4.99	124.19±19.15
p=		0.173	0.843	0.020	0.470	0.339	0.236	0.379
Income level**								
Good	19	24.05±6.03	18.63±9.12	22.58±5.61	27.00±6.06	26.42±5.84	21.05±5.10	129.74±23.60
Moderate	61	20.20±4.48	12.20±4.92	19.08±4.77	23.54±4.23	24.15±5.88	17.49±3.65	120.05±17.34
Bad	19	19.63±5.37	13.56±5.82	19.47±5.36	23.63±5.38	22.21±5.98	20.37±6.45	120.42±26.97
p=		**0.024**	**0.004**	**0.022**	**0.028**	**0.049**	**0.005**	0.069
People they live with**								
Alone	10	20.30±5.71	14.90±3.98	19.40±5.48	23.00±4.80	22.20±5.55	19.20±5.77	126.10±24.17
With his/her own family	63	20.62±5.40	13.05±6.76	19.51±5.43	24.59±5.34	24.40±6.47	18.81±4.48	119.92±21.97
With his/her spouse and children	12	22.67±4.61	14.08±6.34	21.33±4.53	23.92±3.47	24.17±5.06	16.83±3.83	127.83±15.96
Other	14	20.57±4.36	15.36±7.33	20.29±4.56	23.71±4.82	24.86±4.83	19.64±6.19	123.29±16.94
p =		0.583	0.254	0.521	0.864	0.619	0.564	0.275
Status of smoking*								
Yes	34	20.33±5.46	13.44±5.08	18.63±4.83	23.54±5.11	23.80±7.35	19.37±5.34	115.98±23.29
No	65	21.26±4.93	13.91±7.61	20.87±5.29	24.81±4.85	24.57±4.50	18.17±4.26	127.19±17.02
p=		0.598	0.592	**0.028**	0.230	0.437	0.201	**0.007**
Status of having a supporter in difficult/challenging situations *								
Yes	85	21.31±5.33	14.15±6.83	20.26±5.26	24.48±5.10	24.56±6.10	19.06±4.87	123.66±21.16
No	14	17.93±2.84	10.93±3.49	17.21±3.88	22.64±4.01	22.07±4.77	16.71±3.95	111.79±15.89
p=		**0.009**	0.100	**0.027**	0.225	0.121	0.122	**0.009**
Duration of the illness*								
1-15 year	39	19.90±5.04	13.38±7.13	18.79±4.81	23.64±5.06	23.41±4.47	17.95±4.19	121.95±16.24
16-40 year	39	22.18±4.17	13.38±0.09	20.90±5.27	24.49±4.74	25.38±6.91	19.36±5.62	123.28±20.85
p=		**0.021**	0.988	0.066	0.518	0.264	0.443	0.656
Duration of attendance at CMHC								
1-11 months	30	21.03±5.41	12.60±4.65	20.37±6.52	23.73±4.16	24.70±4.66	18.43±5.17	122.17±16.01
12-30 months	37	20.14±4.02	11.89±5.43	18.65±3.45	24.05±5.02	24.65±6.79	18.51±4.43	122.41±17.99
36-60 months	20	22.80±5.42	16.15±6.26	21.15±5.43	25.90±5.27	24.65±5.56	20.45±5.26	130.50±21.29
p=		0.185	**0.013**	0.213	0.277	0.805	0.260	0.313

**=Mann-Whitney U test, **=Kruskall-Wallis tests, HLBS=healthy lifestyle behavior scale, CMHC=community mental health centers, SD=standard deviation*

Table 4.
The Relationship Between Patients' Healthy Lifestyle Scale Sub-dimension Scores and Self-care Power Scale Scores

HLBS sub-dimensions		Self-care power scale
Health responsibility	p	0.599**
	r	0.000
Physical activity	p	0.309**
	r	0.000
Nutrition	p	0.460**
	r	0.000
Spiritual development	p	0.579**
	r	0.000
Interpersonal relationships	r	0.503**
	p	0.000
Stress management	r	0.536**
	p	0.000

***=p<0.01, HLBS=healthy lifestyle behavior scale*

In the study, a statistically significant difference was found between smoking and the total score of the self-care power scale (p=0.007). Self-care power score was found to be higher in non-smokers than in smokers. In addition, a statistically significant difference was found between having support in difficult/challenging situations and the total score of the self-care power scale (p=0.009). Self-care power score was found to be higher in those with supporters than those without. No statistically significant difference was found between the patients' gender (p=0.256), income level (p=0.069), people they live with (p=0.275) and the total score of the self-care power scale (Table 3).

There is a medium positive significant relationship between health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, stress management score of HLBS sub-dimensions and self-care power score (respectively r=0.599, 0.309, 0.460, 0.579, 0.503, 0.536 p<0.01) (Table 4).

Discussion

In this study, important data on self-care power and healthy lifestyle behaviors of persons with severe mental illness were obtained. It is seen that the patients got the highest average from the healthy lifestyle scale from the spiritual development and interpersonal relations sub-scales, and the lowest average was physical activity. In addition, patients scored close to the maximum on the self-care power scale. One of the important results of this study is that as individuals' healthy lifestyle behaviors score increases, their self-care power score also increases.

When descriptive features are considered in terms of dependent variables, individuals over the age of 50 have high nutritional scores; those with a high income level had a high score in all dimensions of the healthy lifestyle scale and the self-care power scale; the score of the scale of nutrition and self-care power was high in non-smokers; those who have support in difficult situations have high health responsibility and nutrition subscale scores and self-care power scale scores; those who have been sick for 16-40 years have a high health responsibility subscale score; the physical activity levels of those who attended CMHC for more than 2 years were found to be high. Gender, young age and people with whom they live did not differ in terms of healthy lifestyle scale and self-care power scale scores, it was determined that they were similar.

A literature review shows only one study using the same scale about the healthy lifestyle with persons with severe mental illness. In the study of Erginer and Günüşen (38), the highest scores in the healthy lifestyle scale were found in the spiritual development, interpersonal relationships and nutrition sub-dimensions, and the lowest scores were in the physical activity sub-dimension. The results of the two studies were parallel to each other. Taş and Buldukoğlu (21) determined that individuals with schizophrenia mostly define themselves according to their spiritual characteristics in the dimension of "self-concept". The literature reveals that self-respect increases as the level of religiosity increases in adults (35) and that spiritual beliefs have an important place in the lives of patients with schizophrenia, adding meaning and purpose to their lives (39). The fact that the spiritual growth mean score was higher in this study suggests that most patients live with their families; that personal support is spiritually important in their lives; and that 85.9% of them have support in their difficult/challenging situations. It was determined that there was no difference between spirituality and other descriptive variables except income level. The level of interpersonal relations sub-dimension was found to be higher than the other study in the literature (38). Interpersonal relations determine the communication of the individual with his or her immediate environment. This study considers the high interpersonal relations scores to result from active patient participation in psychosocial skills training, work and occupational therapies, and individual and group therapies in CMHC; and from counseling and rehabilitative nursing services received.

Studies have shown low physical activity levels in psychiatric patients. Psychiatric patients can lead a negative life such as sedentary life, constant sleepiness, and self-alienation, often resulting in internalizing the effects of the disease increased introversion (40,41). Studies have shown that patients with schizophrenia are less physically active and have a sedentary lifestyle compared to the general population, and as a result, they are at risk of increased body mass index (BMI) and metabolic syndrome (42-44). Planned and professional exercises applied to psychiatric patients seem to be effective in both weight loss and BMI reduction, which may improve negative body image caused by weight

gain as a side-effect of psychotropic drug treatment (45-48). Patients participating in physical activity programs feel better mentally, become more adaptable to drug treatment and therapeutic interventions, and experience better social functioning, less anxiety and improved sleep (34,47). In our study, only those who had a longer time to come to CMHC had a higher physical activity score. Because practices are carried out to increase physical activity in the programs of CMHC.

In this study, the fact that most patients had someone who supported them in difficult situations contributed to their taking responsibility for health and increasing their self-care power scores. Health responsibility is defined as behavior that protects health and achieves behavioral improvement. However, many studies have found that psychiatric patients have physical health problems, such as hypertension, diabetes, glucose abnormalities, low exercise level, alcohol, and drug use (1,9,49). According to these results, it can be said that the level of health responsibility of psychiatric patients is not good, and they need support.

The nutritional score was found to be high in those aged 50-80, with good income, non-smokers and have support in tricky situations.

Studies have found that obesity rates are high in patients with severe psychiatric disorders. It is known that in addition to the negative symptoms of the disease, drug side effects and lack of physical activity, inadequate and unbalanced nutrition also contribute to this problem (13,18). This study shows that young patients, the poor, and newly diagnosed patients have nutritional problems. Nutritional problem is an issue that should be paid attention in rehabilitation programs of psychiatric patients as it causes other health problems.

It is a very remarkable result that those with a good income level have high scores on healthy lifestyle behaviors and self-care power in all areas. The relationship between poverty and health is a well-known issue in the literature. Individuals' access to health services is an important variable that determines their education and lifestyle. Patients with low-income levels, especially in CMHC, should be considered as a risky group in terms of healthy lifestyle behaviors. The fact that most of the patients in the study are not working may cause the income level to decrease, affecting the continuation of healthy lifestyle behaviors.

Patients' self-care power score is close to the maximum score. In addition, it was determined that having someone who supports them in difficult situations and non-smokers have higher self-care scores. This result reveals that psychiatry patients have high self-care power and have less difficulty in determining their self-care needs. The self-care power scores of the patients in this study were found to be higher than the four studies in the literature (19-22). Considering these scores collectively suggests that the patients participating in the study could meet their self-care needs more easily. The reason for this is perhaps that more than half of the patients live with their families, have support in meeting their self-care needs, attend CMHC regularly.

The self-care power of the individual is also closely related to the ability to meet the care needs. For this reason, evaluation of the self-care power of persons with severe mental illness inevitably becomes significant in assessing the ability to participate in society and live independently. Enabling patients to identify and fulfill their needs concerning physical activity, nutrition, interpersonal relations, stress management, spiritual growth and health responsibility will provide positive developments in self-care power.

Also, it was determined that as the healthy lifestyle behaviors score increased in individuals, the self-care power score also increased. When the literature is examined, there are no studies examining the relationship between healthy lifestyle behaviors and self-care power in persons with severe mental illness. Ensuring that the individual gains autonomy by supporting self-care is one of the basic principles of effective nursing care. The self-care skill level of the individual in all cognitive and physical functions is a factor influencing repeated hospitalizations (7,50). Self-care, if carried out effectively, makes a significant contribution to the structural integrity, functionality, and development of the individual. The self-care power of the individual is also closely related to the ability to meet the care needs (14). Therefore, self-care power has an important role in the development of healthy lifestyle behaviors of individuals. Therefore, the evaluation of the self-care power of persons with severe mental illness inevitably gains importance in ensuring their participation in society and in maintaining their lives independently. Being aware of the needs of patients in the dimensions of physical activity, nutrition, interpersonal relations, stress management, spiritual development and health responsibility that affect their self-care and providing support to the patient in the acquisition of these behaviors will also provide positive developments in self-care power.

Study Limitations

Study participants included 99 persons with severe mental illness who attended CMHCs affiliated to one training and research hospital and two state hospitals; a resulting limitation is that the study results can only be generalized to the sample of the study.

Conclusion

In this study, it was determined that as the self-care power level of the persons with severe mental illness increased, the healthy lifestyle behaviors scores increased. In the study, the nutritional score of those who are over 50 years old, those with a good income level, those who do not smoke, and those who support them in difficult situations were found to be higher. The physical activity score of those who had a long time to come to CMHC was found to be higher.

Also, it was found that the health responsibility score of those who have a supporter in troubled situations and who have a longer illness duration are higher. It is noteworthy that patients with a good income level have higher scores in all dimensions of HLBD. It has been determined that having a supporter in difficult situations and non-smokers have higher self-care scores.

High levels of healthy lifestyle behaviors in persons with severe mental illness also depend on high self-care power. Nurses working with patients; they can develop healthy lifestyle behaviors by increasing the self-care power of patients. Evaluation of poor patients, young patients, and those who do not have low support for CMHC as a risky group in terms of healthy lifestyle behaviors; in order for patients to integrate healthy lifestyle behaviors into their lives, it is recommended to increase the education of patients in CMHC and to conduct screenings examining healthy lifestyle behaviors and self-care power in persons with severe mental illness at regular intervals.

Ethics Committee Approval: Written permission was granted by the Non-Interventional Research Ethics Committee of Üsküdar University (meeting 10, October 17, 2017) and by the Southern Public Hospitals Association where the institutions hosting the study were affiliated.

Informed Consent: Written informed consent was also obtained from the participants.

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References

1. Gray R, Hardy S, Anderson KH. Physical health and severe mental illness: if we don't do something about it, who will? Int J Ment Health Nurs 2009;18(5):299-300. [Crossref]
2. Tosh G, Clifton AV, Xia J, White MM. General physical health advice for people with serious mental illness. Cochrane Database Syst Rev 2014;(3):CD008567. [Crossref]
3. Walker SN, Hill-Polerecky DM. Psychometric evaluation of HPLP II. Unpublished Manuscript, University of Nebraska Medical Center 1987;36(2):76-81. [Crossref]
4. Crosse C. A meaningful day: integrating psychosocial rehabilitation into community treatment of schizophrenia. Med J Aust 2003;178(S9):S76-S78. [Crossref]
5. Kalinowska S, Trześniowska-Drukała B, Kłoda K, Safranow K, Misiak B, Cyran A, et al. The Association between Lifestyle Choices and Schizophrenia Symptoms. J Clin Med 2021;10(1):165. [Crossref]
6. Öyekçin DG. Frequency of metabolic syndrome in a group of patients with schizophrenia and schizoaffective disorder. Anatolian Journal of Psychiatry 2009;10(1):26-33. [Crossref]
7. Riegel B, Dunbar SB, Fitzsimons D, Freedland KE, Lee CS, Middleton S, et al. Self-care research: Where are we now? Where are we going? Int J Nurs Stud 2021;116:103402. [Crossref]
8. Ryan MC, Thakore JH. Physical consequences of schizophrenia and its treatment: the metabolic syndrome. Life Sci 2002;71(3):239-257. [Crossref]
9. Sane Australia 2007. Opportunity lost: Lack of physical health care is hurting people with mental illness. Resarch Bultein. https://www.sane.org/research [Crossref]
10. Kilian R, Becker T, Krüger K, Schmid S, Frasch K. Health behavior in psychiatric in-patients compared with a German general population sample. Acta Psychiatr Scand 2006;114(4):242-248. [Crossref]
11. Collins E, Tranter S, Irvine F. The physical health of the seriously mentally ill: an overview of the literature. J Psychiatr Ment Health Nurs 2012;19(7):638-646. [Crossref]
12. Wärdig RE, Bachrach-Lindström M, Foldemo A, Lindström T, Hultsjö S. Prerequisites for a healthy lifestyle-experiences of persons with psychosis. Issues Ment Health Nurs 2013;34(8):602-610. [Crossref]
13. Ohlsen RI, Peacock G, Smith S. Developing a service to monitor and improve physical health in people with serious mental illness. J Psychiatr Ment Health Nurs 2005;12(5):614-619. [Crossref]
14. Orem DE. Self-care deficit theory of nursing: concepts and applications (7 ed.). USA: Dennis CM Mosby-Year Book Inc. 2001. [Crossref]
15. Ausili D, Masotto M, Dall'Ora C, Salvini L, Di Mauro S. A literature review on self-care of chronic illness: definition, assessment and related outcomes. Prof Inferm 2014;67(3):180-189. [Crossref]
16. Dönmez YC, Yavuz M, Giersbergen V, Baslı A, Yıldız MD, Yıldız E. Determination of healthy lifestyle behaviours and self-care power of patients with lumbar disc hernia. Adıyaman University Journal of Health Sciences. 2019; 5(2);1629-1641. [Crossref]
17. İstek N, Karakurt P. A global health problem: type 2 diabetes and self-care management. A global health problem: type 2 diabetes and self-care management. JAREN 2018;4(3):179-182. [Crossref]
18. Simonelli-Muñoz AJ, Fortea MI, Salorio P, Gallego-Gomez JI, Sánchez-Bautista S, Balanza S. Dietary habits of patients with schizophrenia: a self-reported questionnaire survey. Int J Ment Health Nurs 2012;21(3):220-228. [Crossref]
19. Çiftçi B, Yıldırım N, Şahin Altun Ö, Avşar G. What level of self-care agency in mental illness? The factors affecting self-care agency and self-care agency in patients with mental illness. Arch Psychiatr Nurs 2015 ;29(6):372-376. [Crossref]
20. Çörçem P, Parlak Günüşen N. Investigation of self-care power and factors affecting schizophrenia patients. IV. National Psychiatric Nursing Congress. Abstract Book. Samsun: 2010. p.176-177.
21. Taş S, Buldukoğlu K. Early self-care power and care needs of patients with schizophrenia after discharge. Journal of Psychiatric Nursing 2018;9(1):11-22. [Crossref]
22. Korkmaz C, Durat G, Tarsuslu B. An evaluation of the disability, insight and self-care agency of schizophrenia patients. Perspect Psychiatr Care 2022;58(3):919-927. [Crossref]
23. Lucock M, Gillard S, Adams K, Simons L, White R, Edwards C. Self-care in mental health services: a narrative review. Health Soc Care Community 2011;19(6):602-616. [Crossref]
24. Chen SR, Chien YP, Kang CM, Jeng C, Chang WY. Comparing self-efficacy and self-care behaviours between outpatients with comorbid schizophrenia and type 2 diabetes and outpatients

with only type 2 diabetes. J Psychiatr Ment Health Nurs 2014;21(5):414-422. [Crossref]
25. Holmberg SK, Kane C. Health and self-care practices of persons with schizophrenia. Psychiatr Serv 1999;50(6):827-829. [Crossref]
26. Gandhi S, Gurusamy J, Damodharan D, Ganesan V, Palaniappan M. Facilitators of healthy life style behaviors in persons with schizophrenia-A qualitative feasibility pilot study. Asian J Psychiatr 2019;40:3-8. [Crossref]
27. Mansuroğlu S, Kutlu FY. The Transtheoretical Model based psychoeducation's effect on healthy lifestyle behaviours in schizophrenia: A randomized controlled trial. Arch Psychiatr Nurs 2022;41:51-61. [Crossref]
28. Chen C, Chen Y, Huang Q, Yan S, Zhu J. Self-Care Ability of Patients With Severe Mental Disorders: Based on Community Patients Investigation in Beijing, China. Front Public Health 2022;10:847098. [Crossref]
29. Blomqvist M, Sandgren A, Carlsson IM, Jormfeldt H. Enabling healthy living: Experiences of people with severe mental illness in psychiatric outpatient services. Int J Ment Health Nurs 2018;27(1):236-246. [Crossref]
30. El-Mallakh P. Evolving self-care in individuals with schizophrenia and diabetes mellitus. Arch Psychiatr Nurs 2006;20(2):55-64. [Crossref]
31. Bonfioli E, Berti L, Goss C, Muraro F, Burti L. Health promotion lifestyle interventions for weight management in psychosis: a systematic review and meta-analysis of randomised controlled trials. BMC Psychiatry 2012;12:78. [Crossref]
32. Rönngren Y, Björk A, Audulv Å, Enmarker I, Kristiansen L, Haage D. Educational nurse-led lifestyle intervention for persons with mental illness. Int J Ment Health Nurs 2018;27(3):1022-1031. [Crossref]
33. McKibbin CL, Kitchen KA, Wykes TL, Lee AA. Barriers and facilitators of a healthy lifestyle among persons with serious and persistent mental illness: perspectives of community mental health providers. Community Ment Health J 2014;50(5):566-576. [Crossref]
34. Ho RT, Fong TC, Wan AH, Au-Yeung FS, Wong CP, Ng WY, et al. A randomized controlled trial on the psychophysiological effects of physical exercise and Tai-chi in patients with chronic schizophrenia. Schizophr Res 2016;171(1-3):42-49. [Crossref]
35. Kimter N. A study on the relationship between religiosity and self-esteem in college students. Çankırı Karatekin University Journal of Social Sciences Institute 2011;2(2):39-60. [Crossref]
36. Nahcivan NO. A Turkish language equivalence of the Exercise of Self-Care Agency Scale. West J Nurs Res 2004;26(7):813-824. [Crossref]
37. Bahar Z, Beşer A, Gördes N, Ersin F, Kissal A. Validity and reliability study of healthy lifestyle behavior scale II. Cumhuriyet University School of Nursing Journal 2008;12(1):1-13. [Crossref]
38. Erginer DK, Günüşen NP. Determination of physical health status and healthy lifestyle behaviors of individuals with mental illness. Perspect Psychiatr Care 2018;54(3):371-379. [Crossref]
39. Huguelet P, Mohr S, Borras L, Gillieron C, Brandt PY. Spirituality and religious practices among outpatients with schizophrenia and their clinicians. Psychiatr Serv 2006;57(3):366-372. [Crossref]
40. Mishu MP, Peckham EJ, Heron PN, Tew GA, Stubbs B, Gilbody S. Factors associated with regular physical activity participation among people with severe mental ill health. Soc Psychiatry Psychiatr Epidemiol 2019;54(7):887-895. [Crossref]
41. Rastad C, Martin C, Asenlöf P. Barriers, benefits, and strategies for physical activity in patients with schizophrenia. Phys Ther 2014;94(10):1467-1479. [Crossref]
42. Vancampfort D, Knapen J, Probst M, van Winkel R, Deckx S, Maurissen K, et al. Considering a frame of reference for physical activity research related to the cardiometabolic risk profile in schizophrenia. Psychiatry Res 2010;177(3):271-279. [Crossref]
43. Vancampfort D, Sweers K, Probst M, Maurissen K, Knapen J, Minguet P, et al. Association of the metabolic syndrome with physical activity performance in patients with schizophrenia. Diabetes Metab 2011;37(4):318-323. [Crossref]
44. Vancampfort D, Knapen J, Probst M, Scheewe T, Remans S, De Hert M. A systematic review of correlates of physical activity in patients with schizophrenia. Acta Psychiatr Scand 2012;125(5):352-362. [Crossref]
45. Dodd KJ, Duffy S, Stewart JA, Impey J, Taylor N. A small group aerobic exercise programme that reduces body weight is feasible in adults with severe chronic schizophrenia: a pilot study. Disabil Rehabil 2011;33(13-14):1222-1229. [Crossref]
46. Oh E, Song E, Shin J. Individual Factors Affecting Self-esteem, and Relationships Among Self-esteem, Body Mass Index, and Body Image in Patients With Schizophrenia. Arch Psychiatr Nurs 2017;31(6):588-595. [Crossref]
47. Loh SY, Abdullah A, Abu Bakar AK, Thambu M, Nik Jaafar NR. Structured Walking and Chronic Institutionalized Schizophrenia Inmates: A pilot RCT Study on Quality of Life. Glob J Health Sci 2015;8(1):238-248. [Crossref]
48. Silva BA, Cassilhas RC, Attux C, Cordeiro Q, Gadelha AL, Telles BA, et al. A 20-week program of resistance or concurrent exercise improves symptoms of schizophrenia: results of a blind, randomized controlled trial. Braz J Psychiatry 2015;37(4):271-279. [Crossref]
49. Smith S, Yeomans D, Bushe CJ, Eriksson C, Harrison T, Holmes R, et al. A well-being programme in severe mental illness. Baseline findings in a UK cohort. Int J Clin Pract 2007;61(12):1971-1978. [Crossref]
50. Cutler C. Assessing patients' perception of self-care agency in psychiatric care. Issues Ment Health Nurs 2003;24(2):199-211. [Crossref]

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